216608

Solomon, Terrance

From: ZOE BAXTER [zoe.baxter@uspto.gov]
Sent: Monday, February 26, 2007 2:27 PM
To: STIC-EIC3700
Subject: Database Search Request, Serial Number: 10/519723

Requester:
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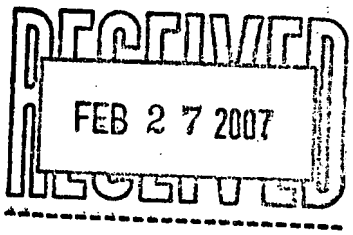

Case serial number:
10/519723
Class / Subclass(es):
600/529
Earliest Priority Filing Date:
6/28/02
Format preferred for results:
Paper
Search Topic Information:
evaluating gastic accommodation
gastric emptying
two meals
stomach volume
Special Instructions and Other Comments:
7-3:30 m-f

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Set     Items   Description
S1    3349693   S GASTRIC? OR GASTRO? OR GASTROINTESTIN? OR DYSPEP? OR STOMACH??? OR
PEPTIC?
S2     872986   S ACCOMMODAT?
S3   20229260   S VOLUME? ? OR MILLILITER? ? OR CAPACIT??? OR QUANTIT??? OR AMOUNT? ? OR
CONTENT? ? OR FILL??? OR DISTEN?
S4    9522802   S EVACUAT? OR EMPTY? OR REMOV? OR CLEAR??? OR DISCHARG?
S5   13190844   S INGEST? OR INGURGITAT? OR CONSUM??? OR FOOD OR DRINK? OR FED OR FEED???
OR EAT??? OR MEAL OR MEALS
S6       2225   S S1(S)S2
S7        624   S S6(S)S4
S8        363   S S7(S)S5
S9   25074478   S EVALUAT? OR ASSESS? OR MEASUR?
S10     87548   S S1(10N)S3
S11       226   S S8(S)S9
S12        94   RD  (unique items)
S13     13264   S (S6 OR S10)(S)S4
S14      6881   S S13(S)S5
S15      3067   S S14(S)S9
S16  21732569   S TWO
S17    224883   S S16(5N)S5
S18       193   S S15(S)S17
S19       191   S S18 NOT S12
S20        69   RD  (unique items)
 ; show files
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[File 5] **Biosis Previews(R)** 1926-2007/Mar W3
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[File 65] **Inside Conferences** 1993-2007/Mar 26
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[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2007/Feb

[File 144] **Pascal** 1973-2007/Mar W3

[File 23] **CSA Technology Research Database** 1963-2007/Mar

[File 34] **SciSearch(R) Cited Ref Sci** 1990-2007/Mar W3

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec

[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 23

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 23

[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 23

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

[File 350] **Derwent WPIX** 1963-2006/UD=200720

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12/5/56 (Item 56 from file: 5) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
Biosis Previews(R)

16954069 **Biosis No.:** 200200547580
Effect of intragastric barostat bag on proximal and distal gastric accommodation in response to liquid meal

Author: Mundt M W (Reprint); Hausken T; Samsom M
Author Address: Gastrointestinal Research Unit, Dept. of Gastroenterology and Surgery, Univ. Medical Center Utrecht, F02.618, 3508 GA, P.O. Box 85500, Utrecht, Netherlands**Netherlands
Journal: American Journal of Physiology 283 (3 Part 1): p G681-G686 September, 2002 2002
Medium: print
ISSN: 0002-9513
Document Type: Article
Record Type: Abstract
Language: English

Abstract: The barostat is the gold standard for **measurement** of proximal **gastric accommodation**. Ultrasonography can be used to **measure gastric** volume. The aim was to investigate the effects of the barostat bag on **gastric accommodation** and transpyloric flow. **Accommodation** after a liquid **meal** (300 ml, 450 kcal) was **measured** twice at random in eight healthy volunteers. Proximal **accommodation** was **measured** once using barostat and once using ultrasound (US). Antrum **accommodation** was **measured** using US. Bag volume (BV), antral area (AA), proximal **gastric** area, and proximal **gastric** diameter (PGD) data were **assessed** before and 1, 5, 15, 30, 40, 50, and 60 min postprandially. Transpyloric flow was **measured** using Doppler 1-5 min postprandially. Fasted, AA size was not affected by the barostat bag (1 mmHg > minimal distension pressure; 2.7 +- 0.5 vs. 2.6 +- 0.3 cm2). Postprandially, AAs were larger with the bag present (ANOVA, $P < 0.04$). Maximum AA was reached with the bag in 5 min, without the bag in 1 min postprandially (15.1 +- 2.3 vs. 9.4 +- 1.5 cm2; $P < 0.03$). Furthermore, AAs were related to BVs ($r = 0.57$; $P < 0.01$). After bag deflation, AA decreased (11.9 +- 1.8 to 7.0 +- 0.9 cm2; $P = 0.02$) and was comparable with the 60-min AA size without the bag (7.1 +- 1.2 cm2; $P = 0.76$) present. Proximal **gastric** radius calculated from the BVs and PGDs was larger with the bag present (ANOVA, $P < 0.001$). No effect on early **gastric emptying** was observed. Postprandially, the barostat bag causes dilatation of the antrum due to **meal** displacement without influencing early **gastric emptying**. This antral dilatation is likely to induce exaggerated proximal **gastric** relaxation observed in studies using the barostat to **evaluate** fundic **accommodation**.

Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Nutrition
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Organisms: Parts Etc: antral area--digestive system; stomach--digestive system
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Methods & Equipment: intragastric barostat bag--medical equipment; ultrasonography--imaging method
Miscellaneous Terms: distal gastric accommodation; gastric emptying; gastric volume; liquid meal ; proximal gastric accommodation; transpyloric flow
Concept Codes:
13202 Nutrition - General studies, nutritional status and methods
14004 Digestive system - Physiology and biochemistry
Biosystematic Codes:

86215 Hominidae

12/5/57 (Item 57 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

16833070 **Biosis No.:** 200200426581
Non-invasive measurement of gastric accommodation in humans

Author: Schwizer W (Reprint); Steingotter A; Fox M; Zur T; Thumshirn M; Bosiger P; Fried M
Author Address: Gastroenterology, University Hospital of Zurich, CH-8091, Zurich, Switzerland**Switzerland
Journal: Gut 51 (Supplement 1): p i59-i62 July, 2002 2002
Medium: print
ISSN: 0017-5749
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Gastric accommodation is a term used to describe the reduction in **gastric** tone and increase in compliance that follows **ingestion** of a **meal**. It involves at least two responses: "receptive relaxation" which allows the **stomach** to accept a volume load without a significant rise in **gastric** pressure and "adaptive relaxation" which modulates **gastric** tone in response to the specific properties of the **meal ingested**. Abnormal postprandial **gastric accommodation** occurs in several conditions and may be involved in the pathogenesis of functional **dyspepsia**. However, there are considerable technical difficulties in **measuring** the **accommodation** process. The current standard barostat studies, and other methods such as conventional and three dimensional ultrasound, or single photon emission computed tomography (SPECT) have significant disadvantages. The ideal technique would be non-invasive, widely available, convenient, reliable, and would not expose the subject to ionising radiation. It would also allow **measurement** of **gastric accommodation** in response to solid as well as liquid **meals**. There is also a need to differentiate between responses to **food**, **gastric** secretion, and air, and to simultaneously monitor changes in **gastric** tone, tension, motility, **emptying**, and transpyloric flow. New magnetic resonance imaging (MRI) techniques are being developed to address many of these needs.

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--normal subjects
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Methods & Equipment: gastric barostat study--analytical method; magnetic resonance imaging-- Imaging Techniques, imaging method; single photon emission computed tomography--imaging method; ultrasound--imaging method
Miscellaneous Terms: gastric accommodation--imaging study, noninvasive measurement
Concept Codes:
14006 Digestive system - Pathology
Biosystematic Codes:
86215 Hominidae

12/5/59 (Item 59 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options Blackwell Publishing
Biosis Previews(R)

16478046 **Biosis No.:** 200200071557
Noninvasive measurement of gastric accommodation in patients with idiopathic nonulcer dyspepsia

Author: Kim Doe-Young; Delgado-Aros Silvia; Camilleri Michael (Reprint); Samsom Melvin; Murray Joseph A; O'Connor Michael K; Brinkmann Benjamin H; Stephens Debra A; Lighvani Sebastian S; Burton Duane D
Author Address: Mayo Clinic, 200 First Street Southwest, Charlton 7-154, Rochester, MN, 55905, USA**USA
Journal: American Journal of Gastroenterology 96 (11): p 3099-3105 November, 2001 2001
Medium: print
ISSN: 0002-9270
Document Type: Article
Record Type: Abstract
Language: English

Abstract: OBJECTIVES: Postprandial symptoms are associated with impaired postprandial **gastric accommodation**. The aims of this study were to apply a noninvasive method to **measure accommodation** of the entire **stomach** in healthy subjects and in patients with idiopathic **dyspeptic** symptoms, and to **assess** the frequency of abnormal **gastric accommodation** and **emptying** of solids in these patients. METHODS: In 20 healthy volunteers and 32 tertiary referral patients, we used i.v. 99mTc-single photon emission computed tomography (SPECT) to **measure** fasting and postprandial **gastric** volumes; we expressed the volume response to **feeding** ("**accommodation**") as the change in **gastric** volume and the ratio of postprandial/fasting volumes. The **stomach** was identified in transaxial SPECT tomographic images using a semiautomated, intensity-based extraction algorithm. Whole **gastric** volumes were **measured** using AnalyzeAVW software. **Gastric emptying** in patients was **measured** by scintigraphy. We also **assessed dyspeptic** symptoms and the association with normal or reduced **accommodation**. RESULTS: SPECT imaging detects the postprandial change in **gastric** volume ("**accommodation**") in health and disease. Among healthy subjects (eight men, 12 women), the postprandial/fasting **gastric** volume ratio was 4.9 +- 1.7 (mean +- SD; fifth through 95th percentiles 3-8, median 4.6). Thirteen (41%) patients with idiopathic nonulcer **dyspepsia** had reduced postprandial "**accommodation**." **Gastric emptying** was fast in four (13%), normal in 25 (78%), and slow in three (9%) patients. Both tests were normal in 50% of patients. Weight loss of >10 pounds tended to be more frequently observed in those with reduced "**accommodation**" (62% vs 32%, p = 0.09). CONCLUSIONS: SPECT imaging noninvasively **measures** fasting and postprandial **gastric** volumes in humans. Half the patients with idiopathic nonulcer **dyspepsia** had impaired **gastric accommodation** or **emptying**. Reduced **gastric** "**accommodation**" was observed in 41% of a group with idiopathic nonulcer **dyspepsia**. Abnormal **gastric emptying** is less frequent (22%).

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--patient
Organisms: Parts Etc: stomach--digestive system, accommodation
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: idiopathic nonulcer dyspepsia--digestive system disease
Methods & Equipment: single photon emission computed tomography--imaging method

Miscellaneous Terms: fasting gastric volumes; gastric accommodation--noninvasive measurement; gastric emptying; postprandial gastric volumes; postprandial symptoms

Concept Codes:

14004 Digestive system - Physiology and biochemistry

14006 Digestive system - Pathology

Biosystematic Codes:

86215 Hominidae

12/5/60 (Item 60 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options Blackwell Publishing
Biosis Previews(R)

15883189 **Biosis No.:** 200100055028

Novel testing of human gastric motor and sensory functions: Rationale, methods, and potential applications in clinical practice

Author: Kim Doe-Young; Myung Seung-Jae; Camilleri Michael (Reprint)
Author Address: Mayo Clinic, 200 First St. S.W., Charlton 7-154, Rochester, MN, 55905, USA **USA
Journal: American Journal of Gastroenterology 95 (12): p 3365-3373 December, 2000 2000
Medium: print
ISSN: 0002-9270
Document Type: Article; Literature Review
Record Type: Abstract
Language: English

Abstract: Sensitive and reproducible tests are essential to investigate the mechanisms of **gastric** motility and sensation in healthy humans and patients with unexplained upper **gastrointestinal** symptoms. Electrogastrography, manometry, scintigraphic **emptying**, and barostat studies with an intragastric balloon were initially used to understand physiology and pathophysiology of **gastric** motility. However, manometry and barostat studies are time-**consuming**, costly, and invasive, thus reducing their widespread clinical application. To overcome these shortcomings, several novel approaches have been proposed: water/nutrient **drink** test, paracetamol absorption test, 13C-octanoic acid or spirulina breath tests, ultrasonography, magnetic resonance imaging (MRI), single photon emission computed tomography (SPECT), and tensostat. The water/nutrient (satiety) test is a noninvasive test proposed as an alternative to sensory studies performed with an intragastric balloon. The satiety test cannot **measure gastric accommodation**; interpretation of sensory tests usually has required independent **assessment** of **accommodation** or compliance. The tensostat can be used as a **gastric** sensation test because it **measures gastric** wall tension, which is related to the perception of **gastric** distention. To **measure gastric emptying** , the paracetamol absorption test, 13C breath tests, ultrasound, or MRI can be used. The paracetamol absorption test can **measure** the **gastric emptying** of liquids. 13C breath test can **measure** the **gastric emptying** of solids or liquids and can achieve accuracy comparable with **gastric** scintigraphy. Ultrasonography requires special skills, and MRI requires costly equipment. To **measure gastric accommodation** to a **meal**, ultrasound, MRI, and SPECT have been proposed. The recently introduced SPECT requires an intravenous injection of 99mTc-pertechnetate, which the **gastric** mucosa specifically takes up, and specialized imaging and analysis, which have potential to be automated. Thus, novel, noninvasive approaches **assess** different dimensions of **gastric** motility and sensation testing. With further development of these techniques, refinement of their conduct and analysis, and validation of clinical usefulness, they are likely to be applicable in clinical practice to enhance cost-effective, evidence-based management of upper **gastrointestinal** symptoms. Such applications may provide an alternative to sequential empirical trials for symptoms.

Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Methods and Techniques
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Methods & Equipment: magnetic resonance imaging--advantages, assessment method, clinical applications,

disadvantages, imaging method, principle, procedure, radiologic method; paracetamol (acetaminophen) absorption test--advantages, assessment method, clinical applications, disadvantages, principle, procedure; single photon emission computed tomography--advantages, assessment method, clinical applications, disadvantages, imaging method, principle, procedure, radiologic method; stable isotope acid breath tests--advantages, assessment method, clinical applications, disadvantages, principle, procedure; tenostat test--advantages, assessment method, clinical applications, disadvantages, principle, procedure; ultrasonography--advantages, assessment method, clinical applications, disadvantages, imaging method, principle, procedure, radiologic method; water/nutrient drink test--advantages, assessment method, clinical applications, disadvantages, principle, procedure

Miscellaneous Terms: gastric motor function; gastric sensory function; Literature Review

Concept Codes:

14004 Digestive system - Physiology and biochemistry

Biosystematic Codes:

86215 Hominidae

12/5/61 (Item 61 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

15538694 **Biosis No.:** 200000257007
Measurement of gastric accommodation and emptying of a solid meal by magnetic resonance imaging

Author: Choi Myung-Gyu (Reprint); Kim Byung Wook (Reprint); Choo Kyo Young (Reprint); Park Soo Heon (Reprint); Jung Seung Eun (Reprint); Lee Jae Moon (Reprint); Han Sok Won (Reprint); Chung In Sik (Reprint); Chung Kyu Won (Reprint); Sun Hee Sik (Reprint)
Author Address: Catholic Univ of Korea, Seoul, South Korea**South Korea
Journal: Gastroenterology 118 (4 Suppl. 2 Part 1): p AGA A388-AGA A389 April, 2000 2000
Medium: print
Conference/Meeting: 101st Annual Meeting of the American Gastroenterological Association and the Digestive Disease Week. San Diego, California, USA May 21-24, 2000; 20000521
Sponsor: American Gastroenterological Association
ISSN: 0016-5085
Document Type: Meeting; Meeting Abstract
Record Type: Citation
Language: English
Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Methods and Techniques
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Organisms: Parts Etc: stomach--digestive system, volume
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Methods & Equipment: magnetic resonance imaging--analytical method, imaging techniques; scintigraphy--analytical method
Miscellaneous Terms: gastric accommodation; gastric emptying; solid meals; Meeting Abstract; Meeting Abstract

Concept Codes:
14001 Digestive system - General and methods
06502 Radiation biology - General
10050 Biochemistry methods - General
00520 General biology - Symposia, transactions and proceedings
Biosystematic Codes:
86215 Hominidae

12/5/62 (Item 62 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

14855870 **Biosis No.:** 199900115530

Gastric accommodation in non-ulcer dyspepsia and the roles of Helicobacter pylori infection and vagal function

Author: Thumshirn M; Camilleri M (Reprint); Saslow S B; Williams D E; Burton D D; Hanson R B
Author Address: Mayo Clinic, Gastroenterology Res. Unit, 200 First Street SW, Rochester, MN 55905, USA**USA
Journal: Gut 44 (1): p 55-64 Jan., 1999 1999
Medium: print
ISSN: 0017-5749
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Background-The pathophysiological mechanisms in non-ulcer **dyspepsia** are incompletely understood. Aims-To compare **gastric** motor and sensory functions in Helicobacter pylori positive or negative patients with nonulcer **dyspepsia**. Patients-Seventeen patients with nonulcer **dyspepsia** and 16 asymptomatic controls. Methods-The following were **evaluated**: **gastrointestinal** symptoms; **gastric emptying** and orocaecal transit of solids; abdominal vagal function; **gastric** compliance; fasting and postprandial **gastric** tone and phasic contractions; symptoms during **ingestion** of cold water and during the distension of an intragastric bag; and somatic sensitivity and personality profile (Minnesota Multiphasic Personality Inventory, MMPI). Results-**Gastric accommodation** was reduced in H. pylori negative **dyspeptics** relative to controls; the degree of **accommodation** was unrelated to H. pylori status in **dyspeptics** . Increased postprandial **gastric** sensation was more frequent among H pylori positive patients (4/5 H. pylori positive versus 4/12 H. pylori negative patients). Intragastric **meal** distribution and orocaecal transit were normal; **gastric emptying** at four hours was abnormal in 4/17 patients. Vagal dysfunction was rare. Eight of 17 patients had somatisation or depression on MMPI. Conclusion-Impaired **gastric accommodation** is frequent in non-ulcer **dyspepsia** and seems to be unrelated to vagal efferent dysfunction. H. pylori infection does not seem to influence **gastric accommodation**, but is associated with heightened sensitivity in **dyspeptics**. Therapeutic approaches that restore normal postprandial **accommodation** and **gastric** sensitivity should be tested in non-ulcer **dyspepsia**.

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Aerobic Helical or Vibrioid Gram-Negatives--Eubacteria, Bacteria, Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: Helicobacter pylori (Aerobic Helical or Vibrioid Gram-Negatives); human (Hominidae)--patient
Common Taxonomic Terms: Bacteria; Eubacteria; Microorganisms; Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: non-ulcer dyspepsia--digestive system disease; Helicobacter pylori infection--bacterial disease
Mesh Terms: Dyspepsia (MeSH); Helicobacter Infections (MeSH)
Miscellaneous Terms: abdominal vagal function; gastric accommodation; gastric compliance; gastric emptying; gastric tone; orocecal solid transit; phasic contractions

Concept Codes:
14001 Digestive system - General and methods
36001 Medical and clinical microbiology - General and methods
Biosystematic Codes:
06210 Aerobic Helical or Vibrioid Gram-Negatives
86215 Hominidae

12/5/63 (Item 63 from file: 5) **Links**
Fulltext available through: Ebsco Host EJS (Electronic Journals Service) USPTO Full Text Retrieval Options Blackwell Publishing
Biosis Previews(R)

14643816 **Biosis No.:** 199800438063

The influence of cisapride on gastric tone and the perception of gastric distension

Author: Tack J (Reprint); Broeckaert D; Coulie B; Janssens J
Author Address: Dep. Internal Med., Div. Gastroenterology, Univ. Hosp. Gasthuisberg, Herestr. 49, B-3000 Leuven, Belgium**Belgium
Journal: Alimentary Pharmacology and Therapeutics 12 (8): p 761-766 Aug., 1998 1998
Medium: print
ISSN: 0269-2813
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Background: Delayed **gastric emptying**, impaired **gastric accommodation** to a **meal** and hypersensitivity to **gastric** distension have been implied in the pathophysiology of functional **dyspepsia**. **Dyspeptic** patients are often treated with the prokinetic drug cisapride. Aim: To **assess** the effects of cisapride on perception of **gastric** distension and **gastric accommodation** to a **meal**. Methods: Eighteen healthy volunteers underwent a **gastric** barostat study on two occasions, after pretreatment with placebo or cisapride 10 mg q.d.s. Graded isobaric and isovolumetric distensions were performed until the subjects reported discomfort. Volume and pressure changes were recorded and perception was scored by a questionnaire. In 10 volunteers, the amplitude of the **gastric accommodation** to a mixed liquid **meal** was also **measured**. Results: Pre-treatment with cisapride significantly lowered thresholds for perception and for discomfort, both during isobaric (4.3 +- 0.7 vs. 3.2 +- 0.7 and 12.2 +- 1.2 vs. 9.2 +- 0.9 mmHg above minimal distending pressure (MDP), respectively, $P < 0.05$) and isovolumetric (256 +- 46 vs. 200 +- 35 and 644 +- 36 vs. 511 +- 40 mL, respectively, $P < 0.05$) distensions. Cisapride significantly enhanced the size of the **meal**-induced fundus relaxation (143 +- 37 vs. 270 +- 50 mL, $P < 0.05$). Conclusions: Cisapride enhances both the perception of **gastric** distension and the **gastric accommodation** to a **meal**. These data suggest that cisapride may provide benefit to patients with impaired postprandial relaxation of the fundus.

Registry Numbers: 81098-60-4: cisapride
Descriptors:
Major Concepts: Dental and Oral System--Ingestion and Assimilation; Pharmacology
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: dyspepsia--digestive system disease
Mesh Terms: Dyspepsia (MeSH)
Chemicals & Biochemicals: cisapride--gastrointestinal-drug, prokinetic drug
Methods & Equipment: gastric barostat study--analytical method
Miscellaneous Terms: delayed gastric emptying; gastric accommodation; gastric tone--gastric distension; minimal distending pressure
Concept Codes:
22014 Pharmacology - Digestive system

10060 Biochemistry studies - General
12512 Pathology - Therapy
14006 Digestive system - Pathology
22005 Pharmacology - Clinical pharmacology

Biosystematic Codes:

86215 Hominidae

12/5/68 (Item 68 from file: 5) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
Biosis Previews(R)

11909265 **Biosis No.:** 199396073681
Relations among intragastric pressure, postcibal perception, and gastric emptying

Author: Moragas Gloria; Azpiroz Fernando (Reprint); Pavia Javier; Maloagelada Juan-R
Author Address: Digestive System Res. Unit, Hosptial General Vall d'Hebron, Autonomous Univ. Barcelona, 08035 Barcelona, Spain**Spain
Journal: American Journal of Physiology 264 (6 PART 1): p G1112-G1117 1993
ISSN: 0002-9513
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Our aims were to investigate, first, the relationship between **gastric** tone (**measured** with a barostat) and **gastric emptying** (**measured** by radioscintigraphy with and without barostat) and, second, to determine the effect of a symptomatic intragastric pressure increment on **gastric emptying**. In 16 healthy subjects we quantified simultaneously **gastric** tone, **emptying**, and perception at two different intragastric pressure levels: 2 mmHg (low pressure) or 8 mmHg above intra-abdominal pressure (high pressure). At the low intragastric pressure level, **ingestion** of the **meal** induced an additional expansion in intragastric volume of 285 +- 50 ml (P lt 0.001), which reflected a **gastric accommodative** relaxation. At the high pressure level, intragastric volume expanded further, but neither low nor high pressure levels had significant effects on solid **emptying**. Interestingly, low and high pressure levels produced a similar, modest but significant, acceleration of liquid **emptying** (17 +- 5 and 17 +- 4%, respectively). However, although the low pressure was largely unperceived (score 1.0 +- 0.5; NS), the high pressure level produced significant symptomatic perception (score 2.5 +- 0.9; P lt 0.05 vs. low pressure). We conclude that 1) **gastric accommodation** to a **meal** prevents volume-dependent wall tension increments and 2) the **stomach** adapts to increments in postcibal intragastric pressure by a limited acceleration of liquid **emptying**, but wall stress triggers a symptomatic alert mechanism.

Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Nervous System--Neural Coordination
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: Hominidae (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Miscellaneous Terms: BILE ACID TRANSPORT; HUMAN CELL LINE; ILEAL ENTEROCYTE BRUSH-BORDER MEMBRANE; INTESTINAL TRANSPORT; TAUROCHOLATE
Concept Codes:
07004 Behavioral biology - Human behavior
12008 Physiology - Stress
14004 Digestive system - Physiology and biochemistry
20004 Sense organs - Physiology and biochemistry
20504 Nervous system - Physiology and biochemistry
21003 Psychiatry - Psychophysiology
Biosystematic Codes:
86215 Hominidae

12/5/82 (Item 8 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

11995916 **PMID:** 9829399

Effect of percutaneous endoscopic gastrostomy on gastric emptying in clinically normal cats.

Smith S A; Ludlow C L; Hoskinson J J; Butine M D; Goggin J M
Department of Clinical Sciences, College of Veterinary Medicine, Kansas State University, Manhattan 66506, USA.

American journal of veterinary research (UNITED STATES) Nov 1998 , 59 (11) p1414-6 , **ISSN:** 0002-9645--Print **Journal Code:** 0375011
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS

OBJECTIVE: To **assess** the effect of percutaneous endoscopic **gastrostomy** (PEG) tube placement on **gastric emptying** in clinically normal cats. ANIMALS: 8 healthy adult 3- to 5-year-old cats. PROCEDURE: Cats were **accommodated** to the diet for 2 weeks prior to scintigraphy. Caloric needs were divided into 3 feedings/d. **Food** was withheld for 24 hours after tube placement, then was **fed** as a third of the caloric needs on day 1, two-thirds on day 2, and full caloric requirements thereafter. **Gastric emptying** was **measured** via nuclear scintigraphy. Labeled **meals** contained 111 MBq (3 mCi) of 99mTc-labeled disofenin. Sixty-second ventral scintigraphic images were acquired immediately, every 20 minutes for the first hour, then every 30 minutes for 4 hours after **feeding**. Each cat was **evaluated** 3 times prior to PEG tube placement. Cats were anesthetized, and 16-F mushroom-tipped Pezzar **gastrostomy** tubes were placed, using a video endoscope. Scintigraphy was repeated on days 1, 4, 7, 11, 14, and 21 after PEG tube placement. RESULTS: **Gastric emptying** was faster with a PEG tube in place. Percentage of retained **gastric** activity was significantly lower after PEG for 150, 180, 210, and 240 minutes versus time before PEG tube placement. CONCLUSION: Placement of a PEG tube does not delay **gastric emptying** in clinically normal cats. CLINICAL RELEVANCE: **Gastric** retention of **food**, vomiting, and aspiration pneumonia after PEG tube placement may not be related to delayed **gastric emptying**.

Tags: Female; Male
Descriptors: *Cats--physiology--PH; *Enteral Nutrition--veterinary--VE; *Gastric Emptying; *Gastrostomy--veterinary--VE ; Animals; Enteral Nutrition--adverse effects--AE; Enzyme-Linked Immunosorbent Assay--veterinary--VE; Gastroesophageal Reflux--etiology--ET; Gastroesophageal Reflux--veterinary--VE; Gastroscopy--veterinary--VE; Research Support, Non-U.S. Gov't
Record Date Created: 19990125
Record Date Completed: 19990125

12/5/84 (Item 10 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

06927467 **PMID:** 3836705

Lack of correlation between intragastric pressure and early gastric emptying rate after proximal gastric vagotomy.

Oliveira R B; Ceneviva R; Troncon L E
Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas / Sociedade Brasileira de Biofisica ... et al. (BRAZIL) 1985 , 18 (4) p471-5 , **ISSN:** 0100-879X--Print **Journal Code:** 8112917
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
In order to **evaluate** the contribution of the impairment of the **gastric accommodation** to distension to the abnormalities of the **gastric emptying** of a liquid **meal**, these functions were **evaluated** simultaneously in 20 duodenal ulcer patients after proximal **gastric** vagotomy and in 13 non-operated duodenal ulcer patients. **Gastric accommodation** was **measured** by recording intragastric pressure during intragastric instillation of 500 ml 10% dextrose and the **gastric emptying** of this solution was **measured** with the double-sample test **meal** with phenol red as unabsorbable marker. The intragastric volume remaining 10 min after the 500 ml 10% dextrose test **meal** was significantly (P less than 0.02) smaller in the post-vagotomy patients (range: 60.0 to 580.0 ml; median: 320.0 ml) than in the non-operated patients (range: 220.0 to 540.0 ml; median: 380.0 ml). There was no significant difference between the two groups for the half-life of the test **meal** in the **stomach**. Maximal intragastric pressure was significantly higher (P less than 0.02) in post-vagotomy patients (range: 3.3 to 14.5 mmHg; median: 8.7 mmHg) than in non-operated patients (range: 1.8 to 5.5 mmHg; median: 3.8 mmHg). There was no significant correlation between maximal intragastric pressure and volume remaining 10 min after the test **meal** or half-life values within any group. These results confirm other studies showing that the initial **gastric emptying** rate of a liquid **meal** is accelerated and the **gastric accommodation** to distension is impaired by proximal **gastric** vagotomy, while overall **gastric emptying** is not changed.(ABSTRACT TRUNCATED AT 250 WORDS)
Tags: Female; Male
Descriptors: *Duodenal Ulcer--surgery--SU; *Gastric Emptying; *Stomach--physiopathology --PP; *Vagotomy, Proximal Gastric ; Adaptation, Physiological; Adult; Duodenal Ulcer--physiopathology--PP; Humans; Middle Aged; Pressure; Research Support, Non-U.S. Gov't
Record Date Created: 19860918
Record Date Completed: 19860918

12/5/85 (Item 11 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

06477392 **PMID:** 6478096

Gastric accommodation to distension and early gastric emptying in diabetics with neuropathy.

Oliveira R B; Troncon L E; Meneghelli U G; Dantas R O; Godoy R A
Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas / Sociedade Brasileira de Biofisica ... et al. (BRAZIL) 1984 , 17 (1) p49-53 , **ISSN:** 0100-879X--Print **Journal Code:** 8112917
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Gastric accommodation to distension and **gastric emptying** were **assessed** in diabetics with neuropathy and in control subjects. **Gastric accommodation** was **measured** by recording intragastric pressures during the air insufflation of the **stomach** and **gastric emptying** was **measured** by the double sample test **meal** after intragastric instillation of 500 ml of saline into the **empty stomach**. Maximal intragastric pressures during air insufflation were significantly higher in diabetics (N = 6) than in control subjects (N = 15), 16.2 +/- 4.5 vs 10.8 +/- 2.6. The liquid volumes in the **stomach** five minutes after the instillation of the test **meal** was significantly smaller in diabetics (N = 10) than in control subjects (N = 17), 208 +/- 90 vs 294 +/- 48 ml, but no differences in volume were detected thereafter. We conclude that diabetics with neuropathy have an impaired **gastric accommodation** to distension and, probably as a consequence, a rapid early phase of liquid **meal gastric emptying**.
Tags: Female; Male
Descriptors: *Diabetic Neuropathies--physiopathology--PP; *Gastric Emptying; *Gastrointestinal Motility; *Stomach--physiopathology--PP ; Adult; Constipation--complications--CO; Diabetic Neuropathies --complications--CO; Diarrhea--complications--CO; Fecal Incontinence --complications--CO; Humans; Middle Aged; Research Support, Non-U.S. Gov't
Record Date Created: 19841101
Record Date Completed: 19841101

12/5/86 (Item 12 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

04122476 **PMID:** 800

Gastric emptying of liquids after different vagotomies and pyloroplasty.

Gleysteen J J; Burdeshaw J A; Hallenbeck G A
Surgery, gynecology & obstetrics (UNITED STATES) Jan 1976 , 142 (1) p41-8 , **ISSN:** 0039-6087--Print
Journal Code: 0101370
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; INDEX MEDICUS

Gastric emptying of five liquid **meals** which differ in their physicochemical properties have been **measured** in control dogs and dogs that have received a Heinecke-Mikulicz pyloroplasty alone, proximal **gastric** vagotomy without drainage, selective **gastric** vagotomy and pyloroplasty and truncal vagotomy and pyloroplasty. The first two phases of **emptying** have been computed by the method of least squares to obtain a logarithmic-linear pattern and are expressed as relative rates: The initial post-**ingestion** process is characterized by beta or the average relative rate of **emptying** in the first ten minutes, the basic or exponential rate as beta and the change in rate from the initial to basic pattern as deltabeta. Each **measure** of **gastric emptying** was statistically analyzed to determine specific differences in rates between the operations studied. We confirmed the earlier claims that pyloroplasty alone does not change the **emptying** rate of liquid **meals**. Each **measure** or phase of **emptying** varies consistently across the operations from **meal** to **meal** tested. Initial **emptying** after all three vagotomies is significantly faster than control with progressive rate increases as proximal **gastric** vagotomy is compared with selective **gastric** vagotomy with pyloroplasty and with truncal vagotomy with pyloroplasty, probably indicative of **gastric** fundal loss of **accommodation** to volume distention after denervation. The basic exponential pattern of **emptying** is not lost after any of the operations studied. The basic rate after proximal **gastric** vagotomy and selective **gastric** vagotomy with pyloroplasty is nearly identical, slightly delayed from the control rate and significantly slower than the more rapid rate after truncal vagotomy with pyloroplasty. Possible explanations for these are discussed and imply a particular importance of the hepatic and celiac vagal fibers, sectioned only with truncal vagotomy, in the regulation of **gastric emptying** of liquids.

Descriptors: *Gastrectomy; *Gastrointestinal Motility; *Pylorus--surgery--SU; *Vagotomy ; Animals; Comparative Study; Dogs; Hydrogen-Ion Concentration; Research Support, U.S. Gov't, Non-P.H.S.; Research Support, U.S. Gov't, P.H.S.; Time Factors
Record Date Created: 19760219
Record Date Completed: 19760219

12/5/89 (Item 1 from file: 53) **Links**
FOODLINE(R): Science

01036769 **Foodline Accession Number:** 660941
Lyophilized edible food incorporating a marker.

Bush K; Evans K D; Konopka S J
Patent Assignee: Advanced Breath Diagnostics LLC
Patent: EP 1503805 A1
Patent: WO 03094976
Application Country: US (DATE(S):10.5.2002)
Priority Application Date: 9.5.2003
Designated States: SeepublishedpatentdocumentforDesignatedContractingStates.
X-Reference: FUNCTIONAL FOODS
Language: English
Document Type: Patent
Foodline Update Code: 20050222
Abstract: A freeze-dried **meal** consisting of an edible **food** that has a marker or drug is disclosed. The invention delivers the marker or drug as part of the **meal** to be **consumed** by an individual in order to **measure** the absorption of therapeutic and diagnostic drugs or markers across an array of highly standardised **meals**. It **measures gastric emptying** by quantifying the marker excreted in the breath of the individual. The invention **assesses** bodily function as well as diagnosing a medical condition. The marker can be incorporated in any **food** type suitable for human consumption such as scrambled eggs and liver. It can also be incorporated in **food** items that **accommodate** special dietary needs of vegetarians or those desiring **food** processed under Kosher standards.
Section Heading: FUNCTIONAL FOODS
Descriptors: DETERMINATION; DIAGNOSIS; DIGESTIVE ABSORPTION; DRIED FOODS; EUROPEAN PATENT; FREEZE DRIED FOODS; FREEZE DRIED MEALS; FUNCTIONAL FOODS; MEALS ; PATENT; PRESERVED FOODS; SORPTION

12/5/92 (Item 1 from file: 350) **Links**
Derwent WPIX

0013962148
WPI Acc no: 2004-142841/200414
Related WPI Acc No: 2003-290004; 2004-082846
XRAM Acc no: C2004-057444
XRPX Acc No: N2004-113899

Use of set of meals comprising constituents which retains meal in stomach of person, for determination of gastric accommodation of person using two measurements of gastric emptying parameter of meal

Patent Assignee: ORIDION BREATHID LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; DAICH J; YARIV G

Patent Family (2 patents, 100 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004002307	A2	20040108	WO 2003IL174	A	20030305	200414	B
AU 2003212627	A1	20040119	AU 2003212627	A	20030305	200447	E

Priority Applications (no., kind, date): US 2002392514 P 20020628; WO 2002IL702 A 20020822

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004002307	A2	EN	93	14		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003212627	A1	EN			Based on OPI patent	WO 2004002307

Alerting Abstract WO A2
NOVELTY - Use of set of **meal**(s) comprising at least one constituent which is operative to cause retention of one **meal** in **stomach** of person and having a predetermined volume, for determination of **gastric accommodation** of the person by means of two **measurements** of the **gastric emptying** parameter of **meal** as a function of the volume of **meal** which exited the **stomach** of the person, is new.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. a single-dosage liquid meal for use by person in breath test;

2. apparatus for determining gastric accommodation of person;
3. kit for diagnosis of gastric accommodation in person;
4. breath test apparatus for determining gastrointestinal conditions in person;
5. substrate for isotopic breath tests;
6. use of set of first and second liquid meal in determining gastric accommodation of person; and
7. kit for use in breath test for evaluation of dyspepsia in person.

USE - For determining gastric accommodation of the person suffering from gastro-intestinal conditions such as dyspepsia and irritable bowel syndrome (claimed).
ADVANTAGE - The apparatus and kit are safe and accurate in diagnosis of gastric disorders in patients.

Title Terms /Index Terms/Additional Words: SET; **MEAL**; COMPRISE; CONSTITUENT; RETAIN; **STOMACH**; PERSON; DETERMINE; **GASTRIC**; **ACCOMMODATE**; TWO; **MEASURE**; **EMPTY**; PARAMETER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/083			Main		"Version 7"

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; P31
Manual Codes (EPI/S-X): S03-E14H
Manual Codes (CPI/A-N): B04-B04L; B04-P01; B11-C07B5; B11-C08E2; B12-K04A

12/5/93 (Item 2 from file: 350) **Links**
Derwent WPIX

0013903394 *Drawing available*
WPI Acc no: 2004-082846/200408
Related WPI Acc No: 2003-290004; 2004-142841
XRAM Acc no: C2004-034081
XRPX Acc No: N2004-066173

Use of set of meal(s) comprising a constituent which retain meal(s) in the stomach of a person, for determination of gastric accommodation of the person using two measurements of gastric emptying parameter of meal

Patent Assignee: BEN-OREN I (BENO-I); CALEBACH E (CALE-I); CARLEBACH E (CARL-I); DAICH J (DAIC-I); ORIDION BREATHID LTD (ORID-N); YARIV G (YARI-I)
Inventor: BEN-OREN I; CALEBACH E; CARLEBACH E; DAICH J; YARIV G

Patent Family (4 patents, 102 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004002308	A2	20040108	WO 2003IL178	A	20030306	200408	B
AU 2003212628	A1	20040119	AU 2003212628	A	20030306	200447	E
EP 1571986	A2	20050914	EP 2003708453	A	20030306	200560	E
			WO 2003IL178	A	20030306		
US 20060074335	A1	20060406	US 2002392514	P	20020628	200625	E
			WO 2003IL178	A	20030306		
			US 2005519723	A	20050726		

Priority Applications (no., kind, date): US 2002392514 P 20020628; WO 2002IL702 A 20020822

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004002308	A2	EN	102	14		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003212628	A1	EN			Based on OPI patent	WO 2004002308
EP 1571986	A2	EN			PCT Application	WO 2003IL178
					Based on OPI patent	WO 2004002308
Regional Designated	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU					

States,Original	LV MC MK NL PT RO SE SI SK TR					
US 20060074335	A1	EN			Related to Provisional	US 2002392514
					PCT Application	WO 2003IL178

Alerting Abstract WO A2

NOVELTY - The use of set of **meal**(s) comprising a constituent which is operative to cause retention of **meal**(s) in the **stomach** of a person and having a predetermined volume, for determination of **gastric accommodation** of the person by means of two **measurements** of the **gastric emptying** parameter of **meal** as a function of the volume of **meal** which exited the **stomach** of the person.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. a single-dosage liquid meal for use by person in breath test;
2. apparatus for determining gastric accommodation of person;
3. kit for diagnosis of gastric accommodation in person;
4. breath test apparatus for determining gastrointestinal conditions in person;
5. substrate for isotopic breath tests;
6. use of set of first and second liquid meal in determination of gastric accommodation of person; and
7. kit for use in breath test for evaluation of dyspepsia in person.

USE - For determining gastric accommodation of the person suffering from gastro-intestinal condition such as dyspepsia and irritable bowel syndrome (claimed).

ADVANTAGE - The apparatus and kit are safe and accurate in diagnosis of gastric disorders in patients.

DESCRIPTION OF DRAWINGS - The figure shows flowchart of the detection and treatment of asymptomatic patients belonging to gastrointestinal high-risk group.

Title Terms /Index Terms/Additional Words: SET; **MEAL**; COMPRISE; CONSTITUENT; RETAIN; **STOMACH**; PERSON; DETERMINE; **GASTRIC**; **ACCOMMODATE**; TWO; **MEASURE**; **EMPTY**; PARAMETER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/083			Main		"Version 7"
A61B-0005/08	A	I	F	B	20060101
B65D-0081/00	A	I	L	B	20060101

US Classification, Issued: 600532000, 600543000

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; P31; Q34
Manual Codes (EPI/S-X): S03-E14H9
Manual Codes (CPI/A-N): B04-B04L; B11-C08E; B12-K04A

12/5/94 (Item 3 from file: 350) **Links**
Derwent WPIX

0013205719 *Drawing available*
WPI Acc no: 2003-290004/200328
Related WPI Acc No: 2004-082846; 2004-142841
XRAM Acc no: C2003-075333
XRPX Acc No: N2003-230653

Determination of gastrointestinal condition such as dyspepsia or irritable bowel syndrome, comprising performing breath tests and determining gastrointestinal condition from outcome

Patent Assignee: ORIDION BREATHID LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; DAICH J; YARIV G

Patent Family (6 patents, 100 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003017818	A2	20030306	WO 2002IL702	A	20020822	200328	B
EP 1427325	A2	20040616	EP 2002762741	A	20020822	200439	E
			WO 2002IL702	A	20020822		
AU 2002328137	A1	20030310	AU 2002328137	A	20020822	200452	E
US 20050020931	A1	20050127	US 2001314346	P	20010823	200509	E
			US 2002392514	P	20020628		
			WO 2002IL702	A	20020822		
			US 2004784117	A	20040220		
JP 2005503205	W	20050203	WO 2002IL702	A	20020822	200516	E
			JP 2003522349	A	20020822		
AU 2002328137	A8	20051027	AU 2002328137	A	20020822	200624	E

Priority Applications (no., kind, date): US 2004784117 A 20040220; WO 2002IL702 A 20020822; US 2001314346 P 20010823; US 2002392514 P 20020628

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003017818	A2	EN	63	13		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
EP 1427325	A2	EN			PCT Application	WO 2002IL702
					Based on OPI patent	WO 2003017818

Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002328137	A1	EN			Based on OPI patent	WO 2003017818
US 20050020931	A1	EN			Related to Provisional	US 2001314346
					Related to Provisional	US 2002392514
					Continuation of application	WO 2002IL702
JP 2005503205	W	JA	97		PCT Application	WO 2002IL702
					Based on OPI patent	WO 2003017818
AU 2002328137	A8	EN			Based on OPI patent	WO 2003017818

Alerting Abstract WO A2

NOVELTY - Gastrointestinal condition is determined by performing breath test-I and breath test-II, and determining the gastrointestinal condition from the outcome of the tests.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. method of providing a substrate for isotopic breath tests, comprising micro-encapsulating the isotopically labeled material for release in a predetermined part of the gastrointestinal tract;
2. **method** of performing a breath test for the determination of gastric emptying, comprising:
   A. providing **a gas** analyzer;
   B. collecting and analyzing the breath samples continuously, predetermining averaged norms for the values of t] 1/23, t]ag, delta over baseline (DoB) or Gastric Emptying Coefficient (GEC) parameters;
   C. administering test meal comprising a labeled marker whose by-products are absorbed and exhaled **in breaths** after exit from the stomach;
   D. calculating the **parameters** in real time as the breath test proceeds; and
   E. determining final estimated value of the parameters at **the** earliest possible moment, by extrapolation within allowed error limits;
3. method for the determination of gastric accommodation, comprising:
   A. administering liquid meal-I;
   B. determining the rate of emptying of meal-I;
   C. administering liquid meal-II having predetermined gastric retention characteristic in a greater volume **than the** meal-I;
   D. determining the rate of emptying of **meal**-II; and
   E. determining gastric accommodation according to **the** deviation **between** the rate of emptying of **meal**-II and meal-**I**;
4. breath test for determining the effect of the **volume** of meal on intragastric pressure, comprising administering **isotopically** labeled **liquid** meal having a predetermined gastric **retention in** predetermined volume, and determining the rate of emptying **of** the **meal** from the **stomach**; and
5. method for the determination of gastric-intestinal disorders, comprising administering meal comprising marker **materials** (I and II), detecting the generation of hydrogen **by** breath test and **determining** the position within the gastrointestinal tract at which the **hydrogen** is generated **by** the marker **material**-II. Material-I is not absorbed in the **stomach** and reduces hydrogen in **the** presence of bacteria, and material-II indicates the location of the meal within the gastrointestinal tract.

ACTIVITY - Antiinflammatory.

No test details are given for the above mentioned activity.
MECHANISM OF ACTION - None given in the source material.
USE - For diagnosing gastric disorder in patient suffering from dyspepsia (due to gastric emptying disorder, gastric accommodation disorder or *Helicobacter pylori* infection) or irritable bowel syndrome (due to sugar malabsorption disorder, bacterial overgrowth or orocecal transit time disorder). The sugar malabsorption disorder is due to intolerance such as lactose, fructose, **sucrose** or maltose.
ADVANTAGE - The labeled substrate provides good bonding to the test meal in the acidic environment of the stomach, releases the test material rapidly with immediate absorption, metabolization and conversion to measurable carbon dioxide, dual usage for gastric emptying breath test, and is easily prepared at reasonable cost. The method enables to provide noninvasive, accurate and convenient method for the **measurement** of the gastrointestinal conditions related to **gastric** emptying and other gastric motility disorders. The combination of hydrogen and carbon **dioxide** marker in the ingested substrate **enhances the** determination of accelerated or delayed orocecal transit time.
DESCRIPTION OF DRAWINGS - The figure shows a schematic flowchart describing possible courses of detection and treatment for asymptomatic patients belonging to gastrointestinal disorders.

Title Terms /Index Terms/Additional Words: DETERMINE; GASTRO; CONDITION; DYSPEPSIA; IRRITATE; BOWEL; SYNDROME; COMPRISE; PERFORMANCE; BREATH; TEST

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B; A61B-001/00; A61B-010/00; A61B-005/08			Main		"Version 7"
A61K-049/00; A61K-009/10; A61K-009/50			Secondary		"Version 7

US Classification, Issued: 600532000, 424009100

File Segment: CPI; EngPI
DWPI Class: B04; P31
Manual Codes (CPI/A-N): B05-A01B; B05-C04; B05-C08; B07-A02; B10-A07; B10-C04E; B11-C08E1; B12-K04A; B12-M11E

20/5/13 (Item 13 from file: 5) **Links**
Fulltext available through: Ebsco Host EJS (Electronic Journals Service) USPTO Full Text Retrieval Options
Biosis Previews(R)

17128626 **Biosis No.:** 200300087345
Impaired accommodation of proximal stomach in patients with alcoholic liver cirrhosis.

Author: Izbeki F (Reprint); Kiss I; Wittmann T; Varkonyi T T; Legrady P; Lonovics J
Author Address: 1st Dept. of Internal Medicine, Koranyi fasor 8-10, H-6720, Szeged, Hungary **Hungary
Author E-mail Address: ife@in1st.szote.u-szeged.hu
Journal: Scandinavian Journal of Gastroenterology 37 (12): p 1403-1410 December 2002 2002
Medium: print
ISSN: 0036-5521 _(ISSN print)
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Background: Impaired gastric emptying has previously been detected by ultrasonography in cirrhotic patients, and the role of the type of meal has also been discussed. While these earlier studies dealt with the distal part of the stomach, the aim of our study was to examine the effects of three different types of meal on the proximal stomach in cirrhotic patients. Methods: The proximal stomach was examined by ultrasonography in 15 healthy volunteers and in 21 alcoholic cirrhotic patients. The subjects received a liquid meal with a low calorie content and two different semisolid test meals with a low calorie content or high calorie and fat contents. The proximal gastric size was **assessed** by ultrasonography in a sagittal area and a frontal diameter. On the basis of **assessment** of the autonomic nervous function, the cirrhotic patients were divided into two groups: autonomic neuropathy positive and autonomic neuropathy negative. Results: The postcibal gastric size immediately after **ingestion** of the liquid test **meal** was significantly lower in the cirrhotic patients than in the healthy controls. In the healthy volunteers, the **measures** of the proximal gastric size were significantly higher than in either group of cirrhotic patients at to, and at 10, 20 or 30 min after **ingestion** of a semisolid test **meal** with low calorie and fat **contents**. The proximal **gastric** sizes in the three groups of investigated subjects did not differ when the **meal** with high fat and calorie **contents** was tested. When the liquid **meal** was administered, the proximal **gastric** size was significantly lower in the cirrhotic patients with autonomic neuropathy. A significant intragroup difference was not observed when the semisolid **meals** were tested. Conclusions: This study reveals an impairment of the proximal stomach in alcoholic cirrhotic patients. The low calorie liquid **meal** distinguishes between the **two** groups of cirrhotic patients and healthy controls.

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--adult, aged, middle age, female, male, patient
Organisms: Parts Etc: stomach--digestive system; autonomic nervous system--nervous system
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: alcoholic liver cirrhosis--digestive system disease, toxicity; autonomic neuropathy--nervous system disease
Mesh Terms: Liver Cirrhosis, Alcoholic (MeSH); Autonomic Nervous System Diseases (MeSH)
Miscellaneous Terms: accommodation; gastric size
Concept Codes:
14004 Digestive system - Physiology and biochemistry

14006 Digestive system - Pathology
20504 Nervous system - Physiology and biochemistry
20506 Nervous system - Pathology
22501 Toxicology - General and methods
24500 Gerontology

Biosystematic Codes:

86215 Hominidae

20/5/14 (Item 14 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options Blackwell Publishing
Biosis Previews(R)

16957773 **Biosis No.:** 200200551284
Gastric distension and duodenal lipid infusion modulate intestinal gas transit and tolerance in humans

Author: Serra Jordi; Azpiroz Fernando (Reprint); Malagelada Juan-R
Author Address: Digestive System Research Unit, Hospital General Vall d'Hebron, 08035, Barcelona, Spain**Spain
Journal: American Journal of Gastroenterology 97 (9): p 2225-2230 September, 2002 2002
Medium: print
ISSN: 0002-9270
Document Type: Article
Record Type: Abstract
Language: English

Abstract: OBJECTIVE: Patients with unexplained abdominal complaints often attribute their symptoms to intestinal gas and indicate that symptoms are exacerbated by ingestion of a meal. However, the mechanisms responsible are unknown. Our aim was to analyze the specific influence of **two meal** -related factors, gastric distension, and intestinal nutrients, on intestinal gas dynamics and tolerance. METHODS: In 35 healthy subjects, gas **evacuation** and perception of jejunal gas infusion (12 ml/min) were **measured** for 3 h, during simultaneous duodenal infusion of saline, as control, lipids at 1 Kcal/min, or **gastric distension**. RESULTS: Infusion of lipids into the duodenum induced gas retention (584+-154 ml, $p<0.05$ vs 161+-86 ml after saline infusion) without perception (2.2+-0.5 score), whereas **gastric distension** induced perception (score 5.6+-0.4, $p<0.05$ vs score 1.9+-0.4 after saline) without gas retention (7+-205 ml). CONCLUSIONS: Different **meal**-related factors exert specific effects on intestinal gas dynamics and tolerance, and these mechanisms may interact to produce postprandial gas symptoms.

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--patient
Organisms: Parts Etc: duodenum--digestive system
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Chemicals & Biochemicals: lipids
Miscellaneous Terms: gastric distension; intestinal gas transit
Concept Codes:
10066 Biochemistry studies - Lipids
14004 Digestive system - Physiology and biochemistry
14006 Digestive system - Pathology
Biosystematic Codes:
86215 Hominidae

20/5/16 (Item 16 from file: 5) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
Biosis Previews(R)

14761231 **Biosis No.:** 199900020891
Effects of meal volume and posture on gastric emptying of solids and appetite

Author: Doran Selena; Jones Karen L; Andrews Jane M; Horowitz Michael (Reprint)
Author Address: Dep. Med., Royal Adelaide Hosp., North Terrace, Adelaide, SA 5000, Australia**Australia
Journal: American Journal of Physiology 275 (5 PART 2): p R1712-R1718 Nov., 1998 1998
Medium: print
ISSN: 0002-9513
Document Type: Article
Record Type: Abstract
Language: English

Abstract: The effects of volume and posture on gastric emptying and intragastric distribution of a solid meal and appetite were evaluated. Eight normal volunteers were studied on four occasions, on each of which a meal comprising ground beef mixed with tomato sauce of either 650 g ("large") or 217 g ("small") was **eaten**. **Two** studies were performed while the subject was lying in the left lateral decubitus position, and two studies were performed while the subject was sitting so that in each subject data were available for both **meals** and in both postures. Hunger and fullness were **evaluated** using a visual analog questionnaire. In both postures and after both **meals**, gastric **emptying** approximated a linear pattern after an initial lag phase. The lag phase was shorter for the large **meal** when compared with the small **meal** (sitting: large 13 +- 5 vs. small 29 +- 7 min; left lateral: large 16 +- 3 vs. small 24 +- 3 min, $F(1,7) = 46.3$, $P < 0.0005$). In both postures the contents of the total ($F(1,7) = 1794.5$, $P < 0.0001$), proximal ($F(1,7) = 203.7$, $P < 0.0001$), and distal ($F(1,7) = 231.5$, $P < 0.0001$) stomach were greater after the large **meal** when compared with the small **meal**. Although the 50% **emptying** time was greater with the large than the small **meal** ($F(1,7) = 40.8$, $P < 0.001$), the postlag **emptying** rate (g/min) was more rapid with the large **meal** (sitting: large 1.7 +- 0.2 vs. small 1.1 +- 0.1 g/min; left lateral: large 1.8 +- 0.1 vs. small 1.3 +- 0.04 g/min, $F(1,7) = 44.7$, $P < 0.0005$). There was a significant interaction between **meal volume** and posture for retention in the distal **stomach** ($F(1,7) = 7.14$, $P < 0.05$). Contrasts were used to **evaluate** the effects of volume and posture between the four studies and demonstrated an effect of posture for the large ($F(1,21) = 18.7$, $P < 0.005$) but not the small ($F(1,21) = 0.30$, $P = 0.601$ **meal** so that the retention was greater in the sitting when compared with the left lateral position. The magnitude of the postprandial increase in fullness ($F(1,7) = 7.8$, $P < 0.051$ and reduction in hunger ($F(1,7) = 5.9$, $P < 0.051$ was greater with the large **meal**. We conclude that **meal volume** has a major effect on **gastric emptying**; in contrast posture has only a minor impact on intragastric **meal** distribution, which is observed only after a large **meal**, and no effect on gastric **emptying**.

Descriptors:
Major Concepts: Digestive System
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Miscellaneous Terms: appetite; gastric emptying; gravity; intragastric meal distribution; meal volume; satiety; small intestinal feedback
Concept Codes:
14004 Digestive system - Physiology and biochemistry

13214 Nutrition - General dietary studies

Biosystematic Codes:

86215 Hominidae

20/5/17 (Item 17 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options ProQuest
Biosis Previews(R)

14573053 **Biosis No.:** 199800367300
Slow infusion feedings enhance duodenal motor responses and gastric emptying in preterm infants

Author: De Ville Karen; Knapp Elizabeth; Al-Tawil Youhanna; Berseth Carol L (Reprint)
Author Address: Dep. Pediatr./Newborn Section, Baylor Coll. Med., One Baylor Plaza, Houston, TX 77030, USA**USA
Journal: American Journal of Clinical Nutrition 68 (1): p 103-108 July, 1998 1998
Medium: print
ISSN: 0002-9165
Document Type: Article
Record Type: Abstract
Language: English

Abstract: It is unknown whether it is better to feed preterm infants intragastrically by bolus or continuous infusion. This study compared the effect of 2 feeding rates on antral and duodenal motor responses and gastric emptying. Continuous perfusion manometry with a low-compliance machine was performed in 22 infants given feedings at 2 infusion rates. Gastric emptying was also assessed by using a dye-dilution technique to determine whether changes in motor response were reflected by changes in function. The number of antral contractions with both feeding rates decreased from that seen during fasting. Duodenal motor responses increased when infants were fed by slow infusion and decreased when they were fed by rapid infusion. Infants emptied 12 mL/kg of a 20-mL/kg feeding by 20 min after completion of the feeding given by slow infusion concomitantly with the increase in duodenal motor activity but only 8 mL/kg by 20 min after completion of the bolus feeding, when duodenal motor activity decreased ($P < 0.01$). Two hours after completion of the feeding, **volumes** remaining in the **stomach** after slow infusion were one-ninth those remaining after bolus **feeding**. When preterm infants are **fed** by slow infusion over 120 min, their duodenal motor responses are more like those observed in adults and their **gastric contents** are emptied faster and more completely than when they are **fed** with a rapid bolus.

Descriptors:
Major Concepts: Dental and Oral System--Ingestion and Assimilation; Nutrition
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--infant, preterm
Organisms: Parts Etc: stomach--digestive system
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Methods & Equipment: bolus infusion feeding--nutritional method; continuous infusion feeding-- nutritional method
Miscellaneous Terms: antral motor response; duodenal motor response; gastric emptying
Concept Codes:
13202 Nutrition - General studies, nutritional status and methods
14001 Digestive system - General and methods
25000 Pediatrics
Biosystematic Codes:
86215 Hominidae

20/5/18 (Item 18 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

14383539 **Biosis No.:** 199800177786

Motor function of the proximal stomach and visceral perception in gastro-oesophageal reflux disease

Author: Penagini R; Hebbard G; Horowitz M; Dent J; Bermingham H; Jones K; Holloway R H (Reprint)
Author Address: Dep. Gastrointestinal Med., Royal Adelaide Hosp., North Terrace, Adelaide, SA 5000, Australia**Australia
Journal: Gut 42 (2): p 251-257 Feb., 1998 1998
Medium: print
ISSN: 0017-5749
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Background-The abnormally high postprandial rate of transient lower oesophageal sphincter relaxations seen in patients with reflux disease may be related to altered proximal gastric motor function. Heightened visceral sensitivity may also contribute to reporting of symptoms in these patients. Aims-To assess motor function of the proximal stomach and visceral perception in reflux disease with a barostat. Methods-Fasting and postprandial proximal gastric motility, sensation, and symptoms were measured in nine patients with reflux disease and nine healthy subjects. Gastric emptying of solids and liquids was assessed in six of the patients on a different day (and compared to historical controls). Results-Minimal distending pressure and gastric compliance were similar in the two groups, whereas the patients experienced fullness at lower pressures ($p<0.05$) and discomfort at lower balloon volumes ($p<0.005$) during isobaric and isovolumetric distensions respectively. Maximal gastric relaxation induced by the **meal** was similar in the **two** groups. Late after the **meal**, however, proximal gastric tone was lower ($p<0.01$) and the score for fullness higher ($p<0.01$) in the reflux patients, in whom the retention of both solids and liquids in the proximal stomach was greater ($p<0.05$). Conclusions-Reflux disease is associated with delayed recovery of proximal gastric tone after a **meal** and increased visceral sensitivity. The former may contribute to the increased prevalence of reflux during transient lower oesophageal sphincter relaxations and the delay in **emptying** from the proximal stomach, whereas both may contribute to symptom reporting.

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)--patient
Organisms: Parts Etc: proximal stomach--digestive system
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: gastro-esophageal reflux disease--digestive system disease
Mesh Terms: Gastroesophageal Reflux (MeSH)
Miscellaneous Terms: gastric tone; lower esophageal sphincter relaxations; motor function; visceral perception
Concept Codes:
14006 Digestive system - Pathology
17504 Muscle - Physiology and biochemistry
20004 Sense organs - Physiology and biochemistry
20504 Nervous system - Physiology and biochemistry

Biosystematic Codes:
86215 Hominidae

20/5/19 (Item 19 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options ProQuest
Biosis Previews(R)

14279579 **Biosis No.:** 199800073826

Raising milk energy content retards gastric emptying of lactose in lactose-intolerant humans with little effect on lactose digestion

Author: Vesa Tuula H; Marteau Philippe R (Reprint); Briet Francoise B; Boutron-Ruault Marie-Christine; Rambaud Jean-Claude
Author Address: Laennec Hosp., Dep. Gastroenterol., 42 rue de Sevres, 75007 Paris, France** France
Journal: Journal of Nutrition 127 (12): p 2316-2320 Dec., 1997 1997
Medium: print
ISSN: 0022-3166
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Lactose digestion improves when the energy content of a meal is raised, perhaps due to delayed gastric emptying; however, this has not been demonstrated directly. It is not known whether lactose-intolerant subjects should consume full-fat or high energy milk instead of half-skimmed milk. In this study, breath 13CO2 and hydrogen (H2) measurements were combined to assess simultaneously the effect of increasing milk energy content on gastric emptying, digestion, and tolerance of lactose. On two separate days, 11 adult lactose maldigesters ingested, in the fasting state, a single dose of 710 kJ half-skimmed milk or 1970 kJ high energy milk. Both contained 18 g lactose and were supplemented with 100 mg 13C-glycine for breath 13CO2 measurement. For 6 h after milk ingestion, samples of expired breath were collected, and subjects scored their symptoms on a four-grade questionnaire. Gastric emptying was measured from excretion of breath 13CO2. The mean gastric emptying half-time was significantly longer after ingestion of high energy milk than after half-skimmed milk (84 +- 4 vs. 64 +- 4 min, P = 0.004). The mean area under the breath H2 excretion curve measured for 6 h was 330 +- 61 muL/L after subjects consumed high energy milk vs. 470 +- 82 muL/L after they consumed half-skimmed milk (P = 0.07). Mean symptom scores did not differ after **ingestion** of the **two** milks, but only two subjects experienced disturbing symptoms after high energy milk **ingestion** compared with five subjects after **ingestion** of half-skimmed milk (P = 0.56). Although **ingestion** of high energy milk delayed the gastric **emptying** of lactose for significantly longer than the **ingestion** of half-skimmed milk (P < 0.01), it did not lead to significant improvement in symptoms and reflected only a trend toward improved lactose digestion (P = 0.07), as **measured** by the area under the breath H2 excretion curve. These results indicate that it is not beneficial for most lactose-intolerant subjects to replace consumption of half-skimmed milk by milk with a higher energy content.

Registry Numbers: 63-42-3: lactose
Descriptors:
Major Concepts: Dental and Oral System--Ingestion and Assimilation; Nutrition
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: lactose-intolerance--digestive system disease, metabolic disease
Mesh Terms: Lactose Intolerance (MeSH)
Chemicals & Biochemicals: lactose--digestion, tolerance, gastric emptying

Miscellaneous Terms: half-skimmed milk--dairy product, energy content; high energy milk--dairy product, energy content

Concept Codes:

14001 Digestive system - General and methods
10060 Biochemistry studies - General
13002 Metabolism - General metabolism and metabolic pathways
13020 Metabolism - Metabolic disorders
13202 Nutrition - General studies, nutritional status and methods
13502 Food technology - General and methods

Biosystematic Codes:

86215 Hominidae

20/5/20 (Item 20 from file: 5) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
Biosis Previews(R)

13958464 **Biosis No.:** 199799592524
Effect of hyperglycemia on gastric acid secretion during the gastric phase of digestion

Author: Lam W F; Masclee A A M (Reprint); Muller E S M; Lamers C B H W
Author Address: Dep. Gastroenterol.-Hepatol., Univ. Hosp. Leiden, Bldg. 1, C4-P, P.O. Box 9600, 2300 RC Leiden, Netherlands**Netherlands
Journal: American Journal of Physiology 272 (5 PART 1): p G1116-G1121 1997 1997
ISSN: 0002-9513
Document Type: Article
Record Type: Abstract
Language: English

Abstract: We have examined the effect of an acute stable hyperglycemia on gastric acid secretion during the gastric phase of digestion. Gastric acid output was measured with a recovery marker (phenol red) under basal conditions and after repeated intragastric instillation of a liquid **meal** in seven healthy subjects on **two** separate occasions: during normoglycemia (serum glucose, 5 mM) and during acute hyperglycemia (serum glucose, 15 mM). Premeal gastric acid output was significantly (P lt 0.05) reduced during hyperglycemia compared with during normoglycemia (2.6 +- 1.0 vs. 5.8 +- 1.8 mmol/h). Intragastric **meal**-stimulated incremental acid output during hyperglycemia was significantly (P lt 0.05) reduced compared with during normoglycemia (19 +- 4 vs. 38 +- 9 mmol/120 min). **Meal** -stimulated gastrin release during hyperglycemia was significantly (P lt 0.05) reduced compared with that during normoglycemia (4.9 +- 1.3 vs. 6.6 +- 1.6 mu-g cntdot l-1 cntdot 120 min-1). The intragastric **meal** induced significant (P lt 0.05) increases in pancreatic polypeptide concentrations only during normoglycemia. During hyperglycemia, recovery rates of gastric contents were significantly (P lt 0.05) increased compared with during normoglycemia, both before (81 +- 4 vs. 71 +- 6%) and after (72 +- 4 vs. 57 +- 4%) **meal ingestion**, pointing to delayed gastric **emptying** of liquids during hyperglycemia. In conclusion, 1) gastric acid secretion under unstimulated conditions and during the gastric phase of digestion is reduced during hyperglycemia; 2) **meal** -stimulated gastrin release is significantly reduced during hyperglycemia; 3) the reduction in **meal**-stimulated acid output is correlated with the reduction in gastrin release; and 4) pancreatic polypeptide secretion is significantly reduced during hyperglycemia, pointing to impaired vagal cholinergic tone.

Registry Numbers: 9002-76-0Q: GASTRIN; 144696-56-0Q: GASTRIN
Descriptors:
Major Concepts: Biochemistry and Molecular Biophysics; Digestive System--Ingestion and Assimilation; Endocrine System--Chemical Coordination and Homeostasis; Metabolism
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: human (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Chemicals & Biochemicals: GASTRIN
Miscellaneous Terms: DIGESTION; DIGESTIVE SYSTEM; GASTRIC ACID; GASTRIC PHASE; GASTRIN; HYPERGLYCEMIA; MEAL-STIMULATED RELEASE; METABOLIC DISEASE; METABOLISM; PANCREATIC POLYPEPTIDE; SECRETION
Concept Codes:
10060 Biochemistry studies - General

10064 Biochemistry studies - Proteins, peptides and amino acids
10068 Biochemistry studies - Carbohydrates
13002 Metabolism - General metabolism and metabolic pathways
13004 Metabolism - Carbohydrates
13020 Metabolism - Metabolic disorders
14004 Digestive system - Physiology and biochemistry
17008 Endocrine - Pancreas

Biosystematic Codes:

86215 Hominidae

20/5/21 (Item 21 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

13224768 **Biosis No.:** 199698692601

Relationship between gastric and gallbladder emptying and refilling in normal subjects and patients with H. pylori-positive and -negative idiopathic dyspepsia and correlation with symptoms

Author: Marzio Leonardo (Reprint); Falcucci Mariassunta; Ciccaglione Antonio Francesco; Malatesta Maria Grazia; Lapenna Domenico; Ballone Enzo; Antonelli Carlo; Grossi Laurino
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Journal: Digestive Diseases and Sciences 41 (1): p 26-31 1996 1996
ISSN: 0163-2116
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Gastric and gallbladder emptying and refilling was studied in 10 normal subjects and in 38 dyspeptic patients. H. pylori was determined in each dyspeptic on mucosal antral biopsy performed during endoscopy. Gastric and gallbladder emptying was evaluated by real-time ultrasonography. Normal subjects were evaluated after two solid-liquid meals of 340 kcal and 680 kcal. Dyspeptics were studied after the 340-kcal meal only. For each subject and patient, minimum gallbladder **volume** and percentage of **gastric emptying** at this point was determined. **Gastric** and gallbladder slope was also drawn, and the crossing point between the two slopes identified. In normal subjects with the 340-kcal and 680-kcal **meal**, minimum gallbladder **volume** occurred for a similar percentage of **gastric emptying**. The crossing point between the two slopes was computed at the same percentage of gastric and gallbladder refilling with both **meals**. With the 680-kcal **meal** , however, peak gallbladder contraction and the crossing point between the two slopes occurred significantly later than with the 340-kcal **meal** (P lt 0.05). In dyspeptics with the 340-kcal **meal**, the parameters **evaluated** were similar to the ones computed in controls after the **meal** of 680-kcal, suggesting delayed gastric **emptying** and gallbladder refilling. The presence or absence of H. pylori and symptom score were not correlated with any of the parameters studied.

Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Gastroenterology--Human Medicine, Medical Sciences; Infection
Biosystematic Names: Aerobic Helical or Vibrioid Gram-Negatives--Eubacteria, Bacteria, Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: aerobic helical or vibrioid gram-negative bacteria (Aerobic Helical or Vibrioid Gram-Negatives); Helicobacter pylori (Aerobic Helical or Vibrioid Gram-Negatives); human (Hominidae)
Common Taxonomic Terms: Bacteria; Eubacteria; Microorganisms; Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Miscellaneous Terms: BIOPSY; ENDOSCOPY; ULTRASONOGRAPHY
Concept Codes:
06504 Radiation biology - Radiation and isotope techniques
12504 Pathology - Diagnostic
14001 Digestive system - General and methods
14004 Digestive system - Physiology and biochemistry
14006 Digestive system - Pathology

36002 Medical and clinical microbiology - Bacteriology

Biosystematic Codes:

06210 Aerobic Helical or Vibrioid Gram-Negatives

86215 Hominidae

20/5/22 (Item 22 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

12607628 **Biosis No.:** 199598075461

Digestion and absorption of tube-feeding emulsions with different droplet sizes and compositions in the rat

Author: Borel Patrick; Armand Martine; Pasquier Berengere; Senft Michele; Dutot Guy ; Melin Christian; Lafont Huguette; Lairon Denis (Reprint)
Author Address: Unite 130-INSERM, 18 Ave. Mozart, 13009 Marseille, France**France
Journal: Journal of Parenteral and Enteral Nutrition 18 (6): p 534-543 1994 1994
ISSN: 0148-6071
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Assimilation of lipid nutrients depends on the efficiency of emulsified fat hydrolysis by digestive lipases. As shown in vitro, the activity of preduodenal and pancreatic lipases is governed by the physicochemical properties of emulsions. Thus the aim of this study was to evaluate in the rat how emulsions are digested and assimilated depending on their droplet size or solute composition. Fasted rats were intragastrically tube fed emulsions with different median droplet sizes (0.6 mu-m, fine; 22 mu-m, coarse) or solute composition (0.8 mu-m, complex fine) containing 14C-triolein and 3H-cholesterol. **Two** and 5 hours after **feeding**, fat-droplet size was **measured** in gastric and duodenal contents, and lipids were radioactively quantified in different compartments. In the stomach, the droplet size of the fine emulsions significantly increased to values (13 mu-m to 24 mu-m) comparable with those of the coarse emulsion (35 mu-m to 36 mu-m). In the duodenum, the droplet sizes of the three emulsions were in the range of 14 mu-m to 33 mu-m. After 2 hours, gastric triglyceride hydrolysis was significantly higher with the fine than with the coarse emulsion and was lower with the complex fine emulsion. Gastric **emptying** of fat was significantly different, with the following decreasing order: coarse, fine, and complex fine emulsion. In the small intestine, the fine and coarse emulsions were processed comparably, whereas the assimilation of the fine complex emulsion was significantly delayed. Calculations indicate that **ingested** fatty acids were distributed in the peripheral tissues at different rates with the same decreasing order. The fate of a lipophilic nutrient, cholesterol, was also markedly altered by the type of emulsion. These data support the concept that tube-**fed** emulsions with different droplet sizes and solute composition are digested differently and thus are metabolized differently.

Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Foods; Metabolism; Nutrition
Biosystematic Names: Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
Organisms: Muridae (Muridae)
Common Taxonomic Terms: Animals; Chordates; Mammals; Nonhuman Vertebrates; Nonhuman Mammals; Rodents; Vertebrates
Miscellaneous Terms: ENTERAL LIPID FORMULA; GASTRIC EMPTYING; METABOLIC IMPLICATION
Concept Codes:
10066 Biochemistry studies - Lipids
13006 Metabolism - Lipids
13222 Nutrition - Lipids
13530 Food technology - Evaluations of physical and chemical properties
14004 Digestive system - Physiology and biochemistry

22100 Routes of immunization, infection and therapy

Biosystematic Codes:

86375 Muridae

20/5/25 (Item 25 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

12165870 **Biosis No.:** 199497187155

Superior mesenteric artery blood flow and gastric emptying in humans and the differential effects of high fat and high carbohydrate meals

Author: Sidery M B (Reprint); MacDonald I A; Blackshaw P E
Author Address: Dep. Physiol. Pharmacol., Univ. Nottingham Med. Sch., Nottingham NG7 2UH, UK**UK
Journal: Gut 35 (2): p 186-190 1994 1994
ISSN: 0017-5749
Document Type: Article
Record Type: Abstract
Language: English

Abstract: This study was designed to determine if the differential effect of high fat and high carbohydrate meals on mesenteric blood flow is a result of changed gastric emptying rate. Eight healthy men were studied twice. Superior mesenteric artery blood flow (Doppler ultrasound) was measured before and after a 2.5 MJ meal (either 74% of the energy as carbohydrate or 71% as fat). Emptying of meals was followed by gamma-scintigraphy. The pattern of the superior mesenteric artery blood flow response was different after the two meals (interaction effect p lt 0.001 analysis of variance), with a far more sustained response after fat. The time by which half the meal had emptied (t-50) was also significantly greater after fat (p lt 0.02). Superior mesenteric artery blood flow corresponding to t-50 was 449 ml/min after carbohydrate and 592 ml/min after fat. There was a significant curvilinear relation between the superior mesenteric artery blood flow response and gastric emptying after carbohydrate (r-2=0.94) and no relation at all after fat. This study confirms the finding that ingestion of meals with a high fat **content** slows **gastric emptying** compared with **meals** with a high carbohydrate **content** in healthy volunteers. A more sustained mesenteric hyperaemia was also recorded after the fat **meal** compared with the carbohydrate **meal**. The relation, however, between the **volume** of **meal** remaining in the **stomach** and the mesenteric response was considerably different after the **two meals**. Further study is required to elucidate the mechanism behind the vascular responses recorded in the mesenteric bed after **food** in humans.

Descriptors:
Major Concepts: Cardiovascular System--Transport and Circulation; Digestive System-- Ingestion and Assimilation; Nutrition
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: Hominidae (Hominidae)
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Miscellaneous Terms: THERAPY; VASCULAR RESPONSE MECHANISM
Concept Codes:
10066 Biochemistry studies - Lipids
10068 Biochemistry studies - Carbohydrates
12512 Pathology - Therapy
13220 Nutrition - Carbohydrates
13222 Nutrition - Lipids
14004 Digestive system - Physiology and biochemistry
14504 Cardiovascular system - Physiology and biochemistry

Biosystematic Codes:
86215 Hominidae

20/5/27 (Item 27 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

11420264 **Biosis No.:** 199294122105

REHYDRATION AFTER EXERCISE WITH COMMON BEVERAGES AND WATER

Author: GONZALEZ-ALONSO J (Reprint); HEAPS C L; COYLE E F
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Journal: International Journal of Sports Medicine 13 (5): p 399-406 1992
ISSN: 0172-4622
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: This study assessed the effectiveness of two common rehydration beverages (a caffeinated diet cola (DC) and a 6% carbohydrate-electrolyte (CE) solution) compared with water (W) for whole body rehydration, gastric emptying and blood volume (BV) restoration during a 2 h rehydration period following exercise-induced dehydration. Subjects (mean .ovrhdot.VO2max = 4.2 .+-. 0.6 l .cntdot. min 1.cntdot.min -1; n = 19) exercised at 60-80% .ovrhdot.VO2max in the heat (32.degree. C; 40%/rh) until .apprx. 2.5% (1.95 .+-. 0.12 kg) of their body weight (BW) was lost. After exercise, the subjects sat for 2 h in a thermoneutral environmental (21.degree. C; 60% rh) and drank a volume of DC, W and CE equal to the fluid lost. Fluids were **consumed** in **two** boluses averaging 1,046 .+-. 198 and 912 .+-. 186 ml at 0 and 45 min of the 2 h rehydration period, respectively. At the end of the rehydration period, no fluid remained in the stomach during any of the trials as indicated by epigastric impedance. However, in all the trials the subjects were somewhat hypohydrated (range 06-0.9 kg BW belong euhydrated BW; $p < 0.05$) after the 2 h rehydration period since additional water and BW were lost as a result of urine formation, respiration, sweat and metabolism. The percentage of body weight loss that was regained (used as an index of % rehydration) during DC (54 .+-. 5%) was significantly lower than that of W and CE (64 .+-. 5% and 69 .+-. 5%, respectively; $p < 0.05$; $n = 10$). Additionally, the percent rehydration during W was significantly lower than that of CE (65 .+-. 3% vs 73 .+-. 3%, respectively; $p < 0.05$; $n = 19$). The lower whole body rehydration observed with DC compared with CE and W compared with CE was due mostly to greater urine formation (710 .+-. 102 vs. 483 .+-. 91 ml, $p < 0.05$, $n = 10$; and 505 .+-. 61 vs. 339 .+-. 61 ml, $p < 0.05$, $n = 19$, respectively). The decline in blood volume as a result of exercise was not restored during the rehydration period by **ingesting** DC and W, whereas blood volume was fully restored with CE **ingestion** ($p < 0.05$). The **ingestion** of DC is less effective than water for whole body rehydration, whereas **ingestion** of CE is somewhat more effective than both W and DC.

Descriptors: HUMAN EXERCISE-INDUCED DEHYDRATION BLOOD VOLUME CARBOHYDRATE-ELECTROLYTE BEVERAGE FLUID RETENTION CAFFEINATED DIET COLA
Descriptors:
Major Concepts: Blood and Lymphatics--Transport and Circulation; Metabolism; Muscular System--Movement and Support; Physiology
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Concept Codes:
10011 Biochemistry - Physiological water studies
10060 Biochemistry studies - General

10068 Biochemistry studies - Carbohydrates
12010 Physiology - Exercise and physical therapy
13003 Metabolism - Energy and respiratory metabolism
15002 Blood - Blood and lymph studies
15010 Blood - Other body fluids
17504 Muscle - Physiology and biochemistry

Biosystematic Codes:

86215 Hominidae

20/5/30 (Item 30 from file: 5) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
Biosis Previews(R)

10851879 **Biosis No.:** 199192097650

RELATION BETWEEN POSTPRANDIAL GASTRIC EMPTYING AND CUTANEOUS ELECTROGASTROGRAM IN PRIMATES

Author: BRULEY DES VARANNES S (Reprint); MIZRAHI M; DUBOIS A
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Journal: American Journal of Physiology 261 (2 PART 1): p G248-G255 1991
ISSN: 0002-9513
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: The relation between the cutaneous electrogastrogram (EGG) and gastric emptying was investigated in six rhesus monkeys. Gastric emptying was measured using scintigraphy after administration of two 80-ml mixed solid liquid meals (1.5 and 5.0 kcal/kg) tagged with 99mTc-sulfur colloid and 111In-diethylenetriamine pentaacetic acid. Six epigastric bipolar recordings of the EGG were concurrently obtained, digitized, and band-pass filtered. Portions of the signal with motion artifacts were automatically detected and excluded using two microwave motion sensors. During the early postprandial period, gastric emptying was greater after the 1.5-kcal/kg meal than after the 5-kcal/kg meal, and EGG amplitude increased significantly compared with fasting only after the 1.5-kcal/kg meal. Both emptying and EGG amplitude subsequently decreased after the 1.5-kcal/kg meal, whereas these two parameters increased after the 5-kcal/kg meal. As a result, EGG amplitude was significantly correlated with gastric emptying of solids in all six animals. In contrast, EGG frequency was not significantly different between the two meals and was not correlated with emptying. These results indicate that both the EGG and **gastric emptying** are modified differently by **meals** with different caloric **contents** and that the EGG may represent a useful, although indirect, index of gastric **emptying**.

Descriptors: RHESUS MONKEY GASTRIC MOTILITY
Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Integumentary System-- Chemical Coordination and Homeostasis
Biosystematic Names: Cercopithecidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Nonhuman Primates; Primates; Vertebrates
Concept Codes:
10504 Biophysics - Methods and techniques
12100 Movement
14001 Digestive system - General and methods
14004 Digestive system - Physiology and biochemistry
18501 Integumentary system - General and methods
22100 Routes of immunization, infection and therapy
Biosystematic Codes:
86205 Cercopithecidae

20/5/31 (Item 31 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

10827616 **Biosis No.:** 199192073387

MEASUREMENT OF GASTRIC EMPTYING INTESTINAL TRANSIT TIME AND COLONIC FILLING BY SCINTISCAN IN HEALTHY SUBJECTS

Author: LARTIGUE S (Reprint); BIZAIS Y; BRULEY DES VARANNES S; CLOAREC D; GALMICHE J-P
Author Address: SERV MED NUCL, GROUPE FUNCT DIGEST NUTR, CENT RECH VOLONTAIRES, CHU NORD, F-44035 NANTES CEDEX, FRANCE**FRANCE
Journal: Gastroenterologie Clinique et Biologique 15 (5): p 379-385 1991
ISSN: 0399-8320
Document Type: Article
Record Type: Abstract
Language: FRENCH

Abstract: A scintigraphic technique allowing combined measurements of gastric emptying, small intestinal transit time and colonic filling was developed and its reproducibility assessed in 8 healthy volunteers. Each subject underwent four tests: a) two were performed in the fasting state (99mTc labelled water, added to lactulose), b) **two** in the postprandial state (balanced **meal**, 1,750 kJ, included pellets labelled with 111In, the gut transit of which being nearly the same as dietary fibers). Intestinal transit was modeled using linear operators (expressed as a convolution product). In fasting state (lactulose), orocecal transit time of water was 109 .+-. 60 min and 89 .+-. 36 min (m .+-. DS) for the first and second tests, respectively. In the postprandial state, values were 297 .+-. 37 min and 293 .+-. 43 min respectively for the pellets. Small bowel transit times were 135 .+-. 70 and 103 .+-. 40 min respectively in fasting state for water, and 209 .+-. 47 and 209 .+-. 29 min respectively in postprandial state for the pellets. Determination of residual variance showed that reproducibility of the test was better in the postprandial state than in the fasting state. Water orocecal transit times **measured** using this technique and lactulose orocecal transit time **measured** using hydrogen breath test were strongly correlated ($r = 0.98$, $n = 12$, $P < 0.01$). This isotopic method provides a reproducible **assessment** of **gastric emptying**, small bowel transit, and colonic **filling** and could represent a reliable and non invasive tool for further physiological and pharmacological studies.

Descriptors: HUMAN INTESTINAL MOTILITY
Descriptors:
Major Concepts: Digestive System--Ingestion and Assimilation; Morphology; Radiology-- Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Concept Codes:
01012 Methods - Photography
06504 Radiation biology - Radiation and isotope techniques
11106 Anatomy and Histology - Radiologic anatomy
14004 Digestive system - Physiology and biochemistry
Biosystematic Codes:
86215 Hominidae

20/5/32 (Item 32 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options ProQuest
Biosis Previews(R)

10786308 **Biosis No.:** 199192032079

A SMALL DOSE OF SOLUBLE ALGINATE-FIBER AFFECTS POSTPRANDIAL GLYCEMIA AND GASTRIC EMPTYING IN HUMANS WITH DIABETES

Author: TORSDOTTIR I (Reprint); ALPSTEN M; HOLM G; SANDBERG A-S; TOLLI J
Author Address: UNIT NUTRITION RES, NATIONAL UNIV HOSP ICELAND, IS-101 REYKJAVIK, ICELAND** ICELAND
Journal: Journal of Nutrition 121 (6): p 795-799 1991
ISSN: 0022-3166
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: Seven men with well-controlled, non-insulin-dependent (type 2) diabetes **ingested** on **two** different mornings, in random order, **meals** with or without a 5.0-g sodium alginate supplement (algae-isolate, 75% soluble fiber). The **meals** contained similar amounts of digestible carbohydrates, fat and protein. The gastric **emptying** rate of the **meal** containing sodium alginate, **measured** by detection of 51Cr mixed into the **meals**, was significantly slower than that of the fiber-free **meal**. Sodium alginate also induced significantly lower postprandial rises in blood glucose, serum insulin and plasma C-peptide. The diminished glucose response after the addition of sodium alginate could be correlated to the delayed gastric **emptying** rate induced by the fiber ($r_s = 0.92$, $P < 0.01$).

Registry Numbers: 9004-10-8: INSULIN; 50-99-7Q: GLUCOSE; 58367-01-4Q: GLUCOSE; 59112-80-0: C-PEPTIDE
Descriptors: INSULIN GLUCOSE C PEPTIDE DIETARY FIBER DIET THERAPY STATISTICS
Descriptors:
Major Concepts: Biochemistry and Molecular Biophysics; Blood and Lymphatics--Transport and Circulation; Digestive System--Ingestion and Assimilation; Endocrine System --Chemical Coordination and Homeostasis; Metabolism; Nutrition
Biosystematic Names: Algae--Plantae; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Algae; Microorganisms; Nonvascular Plants; Plants; Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Chemicals & Biochemicals: INSULIN; GLUCOSE; GLUCOSE; C-PEPTIDE
Concept Codes:
04500 Mathematical biology and statistical methods
10060 Biochemistry studies - General
10064 Biochemistry studies - Proteins, peptides and amino acids
10068 Biochemistry studies - Carbohydrates
12100 Movement
12512 Pathology - Therapy
13004 Metabolism - Carbohydrates
13012 Metabolism - Proteins, peptides and amino acids
13020 Metabolism - Metabolic disorders
13218 Nutrition - Prophylactic and therapeutic diets

13220 Nutrition - Carbohydrates
14004 Digestive system - Physiology and biochemistry
15002 Blood - Blood and lymph studies
17008 Endocrine - Pancreas
51522 Plant physiology - Chemical constituents

Biosystematic Codes:

13000 Algae
86215 Hominidae

20/5/34 (Item 34 from file: 5) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options
Biosis Previews(R)

09709264 **Biosis No.:** 198988024379

RELATION BETWEEN GASTRIC EMPTYING AND SHORT-TERM REGULATION OF FOOD INTAKE IN THE PIG

Author: GREGORY P C (Reprint); MCFADYEN M; RAYNER D V
Author Address: ROWETT RES INST, GREENBURN ROAD, BUCKSBURN, ABERDEEN AB2 9SB, SCOTL, UK**UK
Journal: Physiology and Behavior 45 (4): p 677-684 1989
ISSN: 0031-9384
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: The relation between gastric emptying (GE),measured by gastric evacuation, and food intake (FI) was studied in pigs fed two meals to appetite per day. Duodenal infusion of emulsified fat (Intralipid; Kabi Vitrum) inhibited both FI and GE of digestible energy by more than the energy infused, but the **gastric volume** at satiety was more than 20% below the control. Duodenal infusions of glucose inhibited FI calorically, and generally inhibited GE calorically; but **gastric volume** at satiety was always equal to control **volume**. Thus GE (via **gastric distension**) may regulate FI to duodenal infusion of glucose but not to Intralipid. In pigs given no infusions, **removal** of the **gastric contents** immediately prior to the p.m. **meal** increased intake by 10%. However, when the contents were retained the pigs ate **two** equal sized **meals** in the day, even though the **gastric volume** after the p.m. **meal** was 24% greater than after the a.m. **meal**. Therefore, although **gastric volume** may influence intake it cannot be the only factor determining satiety on this diet.

Descriptors: INTRALIPID INFUSION SATIETY GASTRIC DISTENSION
Descriptors:
Major Concepts: Behavior; Digestive System--Ingestion and Assimilation; Nutrition
Biosystematic Names: Suidae--Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Animals; Artiodactyls; Chordates; Mammals; Nonhuman Vertebrates; Nonhuman Mammals; Vertebrates
Concept Codes:
07003 Behavioral biology - Animal behavior
10066 Biochemistry studies - Lipids
13202 Nutrition - General studies, nutritional status and methods
13222 Nutrition - Lipids
14001 Digestive system - General and methods
14004 Digestive system - Physiology and biochemistry
20504 Nervous system - Physiology and biochemistry
Biosystematic Codes:
85740 Suidae

20/5/36 (Item 36 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

09206637 **Biosis No.:** 198886046558

DETERMINANTS OF DELAYED GASTRIC EMPTYING IN ANOREXIA NERVOSA AND BULIMIA NERVOSA

Author: ROBINSON P H (Reprint); CLARKE M; BARRETT J
Author Address: ACADEMIC DEP PSYCHOLOGICAL MED, KING'S COLL HOSP SCH MED DENTISTRY, DENMARK HILL, LONDON SE5 9RS, UK**UK
Journal: Gut 29 (4): p 458-464 1988
ISSN: 0017-5749
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: Gastric emptying was measured using a gamma camera in 22 patients with anorexia nervosa, in 10 patients of normal or high weight with bulimia nervosa and in 10 controls. Patients with anorexia nervosa were tested (1) while underweight and selecting their own diet (10 patients); (2) underweight, but receiving an adequate diet on an inpatient unit (refeeding diet) (12 patients); and (3) under refeeding diet conditions after weight gain (eight patients). Three meals, each labelled with technetium 99m-sulphur colloid, 3.7 MBq were used: (1) a mixed solid meal containing labelled poached egg; (2) 200 ml d-glucose solution, 0.5 kcal/ml, and (3) 200 ml physiological saline. Only gastric emptying rates of the solid meal and glucose solution were significantly delayed. Gastric emptying of saline was normal. The gastric disturbance was confined to patients with anorexia nervosa selecting their own diet. Patients receiving adequate nutrition on the ward had normal gastric emptying and weight gain in this group had no significant effect on emptying. Slow emptying was observed in patients who maintained a low weight solely by food restriction as well as in patients whose anorexia nervosa was complicated by episodes of bulimia. Thus, slow gastric emptying occurred when the quantity of food reaching the duodenum was sufficiently reduced to result in severe weight loss. Moreover, abnormal gastric emptying was seen only after the **two meals** that contained calories and were hypertonic to plasma, either of which properties could mediate the disturbance. Gastric **emptying** in bulimia nervosa was normal. Slow gastric **emptying** could exacerbate undereating in starving patients with anorexia nervosa by enhancing satiety.

Registry Numbers: 50-99-7Q: GLUCOSE; 58367-01-4Q: GLUCOSE
Descriptors: HUMAN GASTRIC DISTENSION SOLID MEAL GLUCOSE SOLUTION
Descriptors:
Major Concepts: Behavior; Gastroenterology--Human Medicine, Medical Sciences; Nutrition; Psychiatry--Human Medicine, Medical Sciences; Radiology--Medical Sciences
Biosystematic Names: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Chemicals & Biochemicals: GLUCOSE; GLUCOSE
Concept Codes:
01012 Methods - Photography
06504 Radiation biology - Radiation and isotope techniques
07004 Behavioral biology - Human behavior
12504 Pathology - Diagnostic

13203 Nutrition - Malnutrition and obesity
13216 Nutrition - Pathogenic diets
14006 Digestive system - Pathology
21002 Psychiatry - Psychopathology, psychodynamics and therapy

Biosystematic Codes:

86215 Hominidae

20/5/39 (Item 39 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
Biosis Previews(R)

06561951 **Biosis No.:** 198273065878

EFFECT OF THE KIND OF STARCH WHEAT OR MAIZE AND PROTEINS FISH OR GLUTEN ON CONTROL FACTORS AND PATTERN OF THE GASTRIC EMPTYING OF A SEMI PURIFIED DIET IN THE PIG APPLICATION OF MULTI VARIATE ANALYSIS AND POLYNOMIAL REGRESSION

Author: LAPLACE J P (Reprint); PONS O; CUBER J C; KABORE C; VILLIERS P A
Author Address: INRA, LAB PHYSIOL NUTRITION, CENT RECHERCHES ZOOTECHNIQUES, 78350 JOUY-EN-JOSAS, FRANCE**FRANCE
Journal: Annales de Zootechnie (Paris) 30 (2): p 209-248 1981
ISSN: 0003-424X
Document Type: Article
Record Type: Abstract
Language: FRENCH

Abstract: Twelve Large White pigs, weighing 51.3 kg (average) were fitted with permanent gastric cannulas to measure the residual gastric contents after a test meal (30 min, 1, 2, 4 and 7 h). Four diets including 16% crude protein and prepared according to a factorial combination of 2 purified starches (wheat or maize) and 2 protein sources (fish meal or wheat gluten) were offered after a period of adaptation in 15 test **meals** to each pig. **Two** protein-free diets based on maize or wheat starch were given without previous adaptation. Residual amounts of fresh matter, dry matter, starch and N in the stomach were **measured**. A methodology based on mathematical analysis was applied. Comparisons of the gastric **emptying** curves obtained for each variable tested are reported for all diets used. The gastric **emptying** does not appear to be a limiting factor of the digestive utilization of **food**.

Registry Numbers: 9005-25-8: STARCH
Descriptors: GASTRIC CANNULA MATHEMATICS
Descriptors:
Major Concepts: Agronomy--Agriculture; Animal Husbandry--Agriculture; Nutrition
Biosystematic Names: Gramineae--Monocotyledones, Angiospermae, Spermatophyta, Plantae; Pisces-- Vertebrata, Chordata, Animalia; Suidae--Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia
Common Taxonomic Terms: Angiosperms; Monocots; Plants; Spermatophytes; Vascular Plants; Fish; Animals; Artiodactyls; Chordates; Mammals; Nonhuman Vertebrates; Nonhuman Mammals; Vertebrates
Chemicals & Biochemicals: STARCH
Concept Codes:
04500 Mathematical biology and statistical methods
07517 Ecology: environmental biology - Water research and fishery biology
10064 Biochemistry studies - Proteins, peptides and amino acids
10068 Biochemistry studies - Carbohydrates
11104 Anatomy and Histology - Experimental anatomy
13004 Metabolism - Carbohydrates
13012 Metabolism - Proteins, peptides and amino acids
13220 Nutrition - Carbohydrates
13224 Nutrition - Proteins, peptides and amino acids
14001 Digestive system - General and methods

26504 Animal production - Feeds and feeding
52506 Agronomy - Forage crops and fodder

Biosystematic Codes:

25305 Gramineae
85200 Pisces
85740 Suidae

20/5/46 (Item 3 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

12493207 **PMID:** 10436205

Use of Technegas as a radiopharmaceutical for the measurement of gastric emptying.

Kwiatek M A; Jones K L; Burch W M; Horowitz M; Bartholomeusz F D
School of Medical Radiation, University of South Australia, Adelaide, Australia.
European journal of nuclear medicine (GERMANY) Aug 1999 , 26 (8) p903-6 , **ISSN:** 0340-6997--Print
Journal Code: 7606882
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Many radiopharmaceuticals and test meals that are used to measure gastric emptying are less than optimal. A vegetable-based solid meal, such as rice, labelled with a radiopharmaceutical that also has the capacity to measure gastric emptying of liquids, is likely to be ideal. The role of Technegas as a radioisotopic marker to measure gastric emptying of rice and liquids was evaluated. Technegas-labelled rice was incubated in 0.9% saline, 1 M HCl and simulated gastric fluid (3.2 g/l pepsinogen, pH 2-3) to assess stability of the label. In eight healthy volunteers gastric emptying of **two meals** - 200 g rice (370 kcal) and 75 g dextrose dissolved in 300 ml water (300 kcal), both labelled with 20 MBq of Technegas - was **measured** scintigraphically. Over 4 h, the average label stability was 93.7%+/-0.5% in 0.9% saline, 91.0%+/-0.4% in 1 M HCl and 93.6%+/-0.7% in simulated gastric juice. The lag phase was longer for rice than dextrose (25+/-7 min vs 4+/-2 min; P<0.05), but there was no difference in the post-lag **emptying** rate (2.1+/-0.3 kcal/min vs 1.7+/-0.2 kcal/min; P=0.2) between the **two meals**. We conclude that Technegas is a suitable radiopharmaceutical for **measurement** of gastric **emptying** of rice and nutrient-containing liquids.
Tags: Female; Male
Descriptors: *Gastric Emptying; *Sodium Pertechnetate Tc 99m--diagnostic use--DU ; Adult; Food; Graphite--diagnostic use--DU; Humans; Oryza sativa; Radiopharmaceuticals--diagnostic use--DU; Research Support, Non-U.S. Gov't
CAS Registry No.: 0 (Radiopharmaceuticals); 112263-77-1 (Technegas); 23288-60-0 (Sodium Pertechnetate Tc 99m); 7782-42-5 (Graphite)
Record Date Created: 19991007
Record Date Completed: 19991007

20/5/49 (Item 6 from file: 155) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options
MEDLINE(R)

09073351 **PMID:** 1780349

(-)threo-chlorocitric acid decreases sham feeding of sucrose in rats.

Weatherford S C; Salabarria J; Nelson D; Laughton W B
Department of Neurobiology and Obesity Research, Hoffmann-La Roche, Inc., Nutley, NJ 07110.
Pharmacology, biochemistry, and behavior (UNITED STATES) Sep 1991 , 40 (1) p75-8 , **ISSN:** 0091-3057--Print **Journal Code:** 0367050
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The contribution of changes in rate of gastric emptying to the anorectic effect of (-)-threo-chlorocitric acid (chlorocitrate) was assessed by examining the effect of this drug in sham feeding rats, a preparation where gastric distention does not occur. Gavage administration of chlorocitrate (100-400 mg.kg-1) decreased sham and real feeding of 20% sucrose in a dose-related manner. In sham-feeding rats, the minimal effective dose was 200 mg.kg-1. The anorectic effect was evident at 60 min after 200 mg.kg-1 and 30 min after 400 mg.kg-1. In real-feeding rats, the minimal effective dose was 100 mg.kg-1 and for all doses tested the effect was apparent at the 15-min time point. In a second experiment, the effect of chlorocitrate (100-400 mg.kg-1) on gastric emptying of 20% sucrose was examined. Chlorocitrate (200 and 400 mg.kg-1) had a modest but significant inhibitory effect on gastric emptying; however, the effect was not dose-related. Inasmuch as chlorocitrate decreased sham feeding, its anorectic effect cannot be solely attributed to inhibition of gastric emptying. However, because chlorocitrate was more potent in the real-feeding condition relative to sham feeding, and the time course of the response in the **two feeding** conditions was different, part of chlorocitrate's anorectic effect may depend on postingestive cues such as **gastric distention.**
Tags: Male
Descriptors: *Appetite Depressants--pharmacology--PD; *Citrates--pharmacology--PD; *Feeding Behavior--drug effects--DE; *Gastric Emptying--drug effects--DE ; Animals; Cues; Dose-Response Relationship, Drug; Rats; Rats, Inbred Strains ; Sucrose--pharmacology--PD
CAS Registry No.: 0 (Appetite Depressants); 0 (Citrates); 57-50-1 (Sucrose); 76432-78-5 (chlorocitric acid)
Record Date Created: 19920310
Record Date Completed: 19920310

20/5/53 (Item 10 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

06411557 **PMID:** 6735253

Measurement of intestinal progression of a meal and its residues in normal subjects and patients with functional diarrhoea by a dual isotope technique.

Jian R; Najean Y; Bernier J J
Gut (ENGLAND) Jul 1984 , 25 (7) p728-31 , **ISSN:** 0017-5749--Print **Journal Code:** 2985108R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; INDEX MEDICUS
A new double isotopic method was used to measure the gastrointestinal progression of a meal in nine healthy subjects and seven patients with functional diarrhoea. 51 Chromium chloride (colonic marker) was ingested eight hours before the beginning of the scintigraphic study so that it was by then located in the colon at that time. A second marker, 99m Technetium sulphur colloid labelled the meal. Scintigraphic images were taken before and after the meal for two hours, detecting simultaneously the two isotopes. In the 51 Cr window right colon was localised and intracolonic propulsion was studied; and in the 99m Tc window **gastric emptying** and colon **filling** of the **meal** marker was quantified. A propulsive **gastrocolic** reflex was evidenced in five of the seven patients with functional diarrhoea but in none of the normal subjects. Unabsorbed residues of the **meal** are propelled rapidly in the ileocaecal region. Small intestinal transit of the **meal** marker was twice as rapid in patients with functional diarrhoea as in normal subjects.
Tags: Female; Male
Descriptors: *Diarrhea--physiopathology--PP; *Food; *Gastrointestinal Motility ; Adult; Chromium Radioisotopes--diagnostic use--DU; Colon--physiopathology --PP; Colon--radionuclide imaging--RI; Diarrhea--radionuclide imaging--RI; Gastric Emptying; Humans; Methods; Sulfur--diagnostic use--DU; Technetium --diagnostic use--DU; Technetium Tc 99m Sulfur Colloid
CAS Registry No.: 0 (Chromium Radioisotopes); 0 (Technetium Tc 99m Sulfur Colloid); 7440-26-8 (Technetium); 7704-34-9 (Sulfur)
Record Date Created: 19840802
Record Date Completed: 19840802

20/5/54 (Item 11 from file: 155) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
MEDLINE(R)

06039468 **PMID:** 6832623

Perturbation of upper gastrointestinal function by cold stress.

Thompson D G; Richelson E; Malagelada J R
Gut (ENGLAND) Apr 1983 , 24 (4) p277-83 , **ISSN:** 0017-5749--Print **Journal Code:** 2985108R
Publishing Model Print
Document type: Clinical Trial; Journal Article; Randomized Controlled Trial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: AIM; INDEX MEDICUS
To study the effects of stressful stimulus (cold pain) upon postprandial gastric, duodenal, and pancreatic function, nine healthy adult volunteers were intubated and then given **two** identical liquid **meals**, (199 cal (789 KJ) 240 ml), each being **ingested** during a period of irregular fasting gastroduodenal motility. Ten minutes after each **meal** the subjects received, in randomised order, either a test or control stimulus. The test stimulus consisted of repeated one minute immersions of a hand into ice water, with 15 seconds recovery between immersions, for a total of 20 minutes, while for the control, water at 37 degrees C was used. Serial samples of gastric and duodenal contents allowed estimation of changes in gastric **emptying** and acid secretion, together with pancreatic trypsin output, by a double marker perfusion technique. **Measurements** of blood pressure, pulse, and finger temperature acted as extra-intestinal indices of autonomic response to the stimuli. Cold pain significantly delayed gastric **emptying** and produced a biphasic alteration in both gastric secretion and pancreatic trypsin output, with an initial reduction during the response to the stress followed by an increase during the post-stress period. Our findings show that the normal postprandial function of the upper gut can be **measurably** disturbed by a stressful stimulus. The coincidence of these disturbances with other extra-intestinal autonomic changes suggests that they are a further manifestation of the somatic response to a stress.
Descriptors: *Cold; *Duodenum--physiopathology--PP; *Pancreas--physiopathology--PP; *Stomach--physiopathology--PP; *Stress--physiopathology--PP ; Adult; Gastric Acidity Determination; Gastric Emptying; Gastric Juice --secretion--SE; Humans; Middle Aged; Trypsin--secretion--SE
Enzyme No.: EC 3.4.21.4 (Trypsin)
Record Date Created: 19830505
Record Date Completed: 19830505

20/5/55 (Item 12 from file: 155) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

05722934 **PMID:** 6799931

Gastric emptying in prematures of isocaloric feedings with differing osmolalities.

Siegel M; Lebenthal E; Topper W; Krantz B; Li P K
Pediatric research (UNITED STATES) Feb 1982 , 16 (2) p141-7 , **ISSN:** 0031-3998--Print **Journal Code:** 0100714
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS

The role of osmolar load in the regulation of gastric emptying time was studied in 10 healthy premature infants. Two isocaloric infant feedings of similar composition with mean osmolalities of 279 and 448 mOsm/kg were compared. Emptying was studied over 120 min by the double sampling marker dilution technique and by a single aspiration of the feeding at 30 min. Similar gastric emptying times were noted for both formulas with approximately half of the initial gastric contents remaining at 30 min. The secretory response to the **two meals** during the first 30 min after **feeding** was compared by **measuring** the secretions present in the stomach during that time. The mean secretory response to the feedings did not differ significantly and was less than 2.5 ml in both cases. In general, a biphasic pattern of gastric **emptying** with a rapid early **emptying** phase was noted with both feedings. This study, therefore, provides evidence that when isocaloric feedings with similar composition are used, osmolar load does not play a significant role in the regulation of gastric **emptying** in premature infants. This study also demonstrates that differences in osmolality do not significantly affect the secretory response to a **meal** in the stomach of the premature infant.

Tags: Female; Male
Descriptors: *Diet; *Energy Intake; *Gastric Emptying; *Infant Food; *Infant, Premature ; Enteral Nutrition; Gastric Juice--secretion--SE; Humans; Infant, Newborn; Osmolar Concentration
Record Date Created: 19820412
Record Date Completed: 19820412

20/5/56 (Item 13 from file: 155) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
MEDLINE(R)

04725715 **PMID:** 665770
Relative rates of gastric emptying of glucose vs. fat in rats fed nonliquid meals.

Trout D L; Putney J D; Conway E S
American journal of physiology (UNITED STATES) Jun 1978 , 234 (6) pE660-6 , **ISSN:** 0002-9513--Print
Journal Code: 0370511
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Sprague-Dawley rats were briefly starved, fed various test meals, and killed at measured intervals, and the average fractional emptying (disappearance from stomach) rates for glucose (Kgl) and for fat (Kfat) were determined. The Kgl/Kfat ratio was calculated as a measure of the degree to which the stomach emptied glucose preferentially to fat. The size of the meal affected this ratio, which was 7.6 for a small (0.5 g) meal and 2.4 for a large (2.0 g) meal of a nutritionally complete diet. When test meals contained one of two levels of fat (0.4 and 0.1 g) and of glucose (1.2 and 0.3 g), the high level of fat depressed Kgl and Kgl/Kfat, whereas the high level of glucose depressed Kgl and particularly Kfat and, therefore, raised Kgl/Kfat. Kgl/Kfat was also affected by strain of rat and was reduced almost to 1.0 by mixing the meal into a viscous gel of xanthan gum. In the absence of this gel, the percentage of water existing in **stomach contents** shortly after the test **meals** varied between 53 and 79% and was suspected of influencing Kgl/Kfat.
Tags: Male
Descriptors: *Dietary Carbohydrates--metabolism--ME; *Dietary Fats--metabolism--ME; *Gastric Emptying; *Glucose--metabolism--ME ; Animals; Gels; Kinetics; Rats; Species Specificity; Stomach--metabolism--ME
CAS Registry No.: 0 (Dietary Carbohydrates); 0 (Dietary Fats); 0 (Gels); 50-99-7 (Glucose)
Record Date Created: 19780814
Record Date Completed: 19780814

20/5/61 (Item 3 from file: 73) **Links**
Fulltext available through: custom link USPTO Full Text Retrieval Options
EMBASE

04823402 **EMBASE No:** 1991318138
Relation between postprandial gastric emptying and cutaneous electrogastrogram in primates

Des Varannes S.B.; Mizrahi M.; Dubois A.
Dept. of Medicine, Unif. Ser. Univ. Health Scien., F.E. Hebert School of Medicine, 4301 Jones Bridge Rd,Bethesda, MD 20814-4799 United States
American Journal of Physiology - Gastrointestinal and Liver Physiology (AM. J. PHYSIOL. GASTROINTEST. LIVER PHYSIOL.) (United States) 1991 , 261/2 24-2 (G248-G255)
CODEN: APGPD **ISSN:** 0002-9513
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH

The relation between the cutaneous electrogastrogram (EGG) and gastric **emptying** was investigated in six rhesus monkeys. Gastric **emptying** was **measured** using scintigraphy after administration of **two** 80-ml mixed solid liquid **meals** (1.5 and 5.0 kcal/kg) tagged with sup 9sup 9sup mTc-sulfur colloid and sup 1sup 1sup 1In-diethylenetriamine pentaacetic acid. Six epigastric bipolar recordings of the EGG were concurrently obtained, digitized, and band-pass filtered. Portions of the signal with motion artifacts were automatically detected and excluded using two microwave motion sensors. During the early postprandial period, gastric **emptying** was greater after the 1.5-kcal/kg **meal** than after the 5-kcal/kg **meal**, and EGG amplitude increased significantly compared with fasting only after the 1.5-kcal/kg **meal**. Both **emptying** and EGG amplitude subsequently decreased after the 1.5-kcal/kg **meal**, whereas these **two** parameters increased after the 5-kcal/kg **meal**. As a result, EGG amplitude was significantly correlated with gastric **emptying** of solids in all six animals. In contrast, EGG frequency was not significantly different between the **two meals** and was not correlated with **emptying**. These results indicate that both the EGG and **gastric emptying** are modified differently by **meals** with different caloric **contents** and that the EGG may represent a useful, although indirect, index of gastric **emptying**.

MEDICAL DESCRIPTORS:
* electrophysiology; *gastrointestinal motility; *stomach emptying
animal experiment; article; controlled study; male; monkey; nonhuman; postprandial state; priority journal
SECTION HEADINGS:
002 Physiology
048 Gastroenterology

20/5/62 (Item 1 from file: 50) **Links**
Fulltext available through: USPTO Full Text Retrieval Options ProQuest

0007586086 **CAB Accession Number:** 19981413536
Slow infusion feedings enhance duodenal motor responses and gastric emptying in preterm infants.

Ville, K. de; Knapp, E.; Al-Tawil, Y.; Berseth, C. L.
Department of Pediatrics, Newborn Section, Baylor College of Medicine, Houston, TX 77030, USA.
American Journal of Clinical Nutrition vol. 68 (1): p.103-108
Publication Year: 1998
ISSN: 0002-9165
Language: English **Record Type:** Abstract
Document Type: Journal article
The effect of 2 **feeding** rates on antral and duodenal motor responses and gastric **emptying** was studied in 22 infants fed by continuous perfusion manometry with a low-compliance machine. Gastric **emptying** was **assessed** by using a dye-dilution technique to determine whether changes in motor response were reflected by changes in function. The number of antral contractions with feeding rates decreased from those **measured** during fasting. Duodenal motor responses increased when infants were fed by slow infusion and decreased when fed by rapid infusion. Infants emptied 12 ml/kg of a 20-ml/kg feed 20 min after completion of the feed given by slow infusion but only 8 ml/kg feed was emptied by 20 min after completion of bolus feeding, when duodenal motor activity decreased ($P < 0.01$). **Two** hours after **feeding**, 9 times the **volume** of **food** remained in the **stomach** after bolus **feeding** compared with slow **feeding**. It is concluded that when preterm infants are **fed** by slow infusion over 120 min, duodenal motor responses are more like those observed in adults and **gastric contents** are emptied faster and more completely than when they are **fed** with a rapid bolus. 24 ref.

Descriptors: infant feeding; prematurity; enteral feeding; nutritional support; infusion ; infants; stomach; stomach emptying; digestion; stomach motility; intestinal motility; duodenum
Organism Descriptors: man
Broader Terms: Homo; Hominidae; Primates; mammals; vertebrates; Chordata; animals
CABICodes: Physiology of Human Nutrition (VV120)

20/5/63 (Item 2 from file: 50) **Links**

Fulltext available through: Ebsco Host EJS (Electronic Journals Service) USPTO Full Text Retrieval Options

0004411877 **CAB Accession Number:** 19751438986

Studies of gastrointestinal interactions. 6. Intestinal flow, mean transit time, and mixing after composite meals in man.

Lagerlof, H. O.; Johansson, C.; Ekelund, K.
Dep. Medicine, Karolinska Hospital, Stockholm, Sweden.

Scandinavian Journal of Gastroenterology vol. 9 (3): p.261-270
Publication Year: 1974
ISSN: 0036-5521
Language: English **Record Type:** Abstract
Document Type: Journal article

6. The postprandial flow in the jejunum was studied with a multiple indicator dilution technique, by which changes in transit times of intestinal contents were **measured**. **Two** composite **meals**, which differed in their glucose content, were **eaten** by 7 healthy subjects on different occasions. Despite slower **gastric emptying** of the **meal** containing glucose, the flow **volumes** in jejunum were similar after the **meals**, owing to a dilution of the hypertonic **meal** during intestinal transit. A flow volume of about 500 ml had passed at the jejunal site studied after 3 h. Flow rates of about 2 ml/min persisted for 2 h. The transit times of the intestinal contents did not differ significantly between the **meals**, irrespective of the differences in gastric **emptying** rates. The mean transit time increased during the first hour after **eating** , and undulated thereafter between 20 and 40 min in each experiment. Based on the assumption of a constant velocity of the indicator particles, the transit of the indicator through the entire intestine could be estimated, as could the distribution of test **meal** marker in consecutive segments of the intestine.

Descriptors: intestines; digestive tract; transit time; glucose; intake
Identifiers: flow rate; glucose intake; intestinal flow and transit time
CAS Registry Numbers: 50-99-7
Organism Descriptors: man
Broader Terms: Homo; Hominidae; Primates; mammals; vertebrates; Chordata; animals
CABICodes: Physiology of Human Nutrition (VV120)

20/5/64 (Item 3 from file: 50) **Links**

Fulltext available through: Ebsco Host EJS (Electronic Journals Service) USPTO Full Text Retrieval Options

0004293744 **CAB Accession Number:** 19751427430

Studies in gastrointestinal interactions. 4. Gastric emptying of a composite meal in man. The influence of glucose.

Johansson, C.
Dep. Medicine, Karolinska Hospital, Stockholm, Sweden.

Scandinavian Journal of Gastroenterology vol. 8 (6): p.533-539
Publication Year: 1973
ISSN: 0036-5521
Language: English **Record Type:** Abstract
Document Type: Journal article

4. Gastric **emptying** of a fluid standard test **meal**, of milk protein, maize oil, skimmed milk fat and lactose without or with glucose, was studied in 7 normal subjects. Details of the method have been described previously (NAR 43, 5107). Three polyvinyl tubes were introduced into the digestive tract to terminate in the gastric antrum, the duodenum 15 cm from the pylorus, and the jejunum 75 cm from the antrum. Infused into the duodenum continually every 40 min was vitamin B-12 unlabelled or labelled with 57Co or 60Co. The test **meals** were drunk with polyethylene glycol (PEG) as a marker. **Emptying** of nutrients was **assessed** from the ratio of concentration of nutrient to PEG in the **stomach** and the **amount** of PEG passing into the jejunum. With the glucose-free **meal** the **emptying** of water, protein and fat into the duodenum was constant after an early short rapid phase. The pattern of **emptying** of lactose was exponential. With glucose in the **meal** the **emptying** of the **meal** was in **two** phases: an initial characterized by a constant transfer of sugar and comparatively small amounts of water, protein and fat; and a second coinciding in rates and patterns with those of the glucose-free **meal** . Carbohydrates, protein, fat and water were emptied at different rates. The findings suggest that several mechanisms are involved in the control of gastric **emptying** rate of a composite **meal**.

Descriptors: stomach; normal values; carbohydrates; fats; proteins
Identifiers: emptying; nutrient differentiation; emptying by stomach
Organism Descriptors: man
Broader Terms: Homo; Hominidae; Primates; mammals; vertebrates; Chordata; animals
CABICodes: Physiology of Human Nutrition (VV120)

20/5/67 (Item 1 from file: 34) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

04574192 **Genuine Article#:** TU032 **Number of References:** 20

RELATIONSHIP BETWEEN GASTRIC AND GALLBLADDER EMPTYING AND REFILLING IN NORMAL SUBJECTS AND PATIENTS WITH HELICOBACTER-PYLORI-POSITIVE AND HELICOBACTER-PYLORI-NEGATIVE IDIOPATHIC DYSPEPSIA AND CORRELATION WITH SYMPTOMS

Author: MARZIO L; FALCUCCI M; CICCAGLIONE AF; MALATESTA MG; LAPENNA D; BALLONE E; ANTONELLI C; GROSSI L
Corporate Source: CASA CURA L PIERANGELI,LARGO L PIERANGELI 1/I-65100 PESCARA//ITALY/; UNIV G DANNUNZIO,FAC MED,INST HYG/CHIETI//ITALY/; UNIV G DANNUNZIO,SCH GASTROENTEROL/CHIETI//ITALY/
Journal: DIGESTIVE DISEASES AND SCIENCES , 1996 , V 41 , N1 (JAN) , P 26-31
ISSN: 0163-2116
Language: ENGLISH **Document Type:** ARTICLE
Geographic Location: ITALY
Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences; CC CLIN--Current Contents, Clinical Medicine
Journal Subject Category: GASTROENTEROLOGY AND HEPATOLOGY
Abstract: Gastric and gallbladder **emptying** and refilling was studied in 10 normal subjects and in 38 dyspeptic patients. H. pylori was determined in each dyspeptic on mucosal antral biopsy performed during endoscopy, Gastric and gallbladder **emptying** was **evaluated** by real-time ultrasonography, Normal subjects were **evaluated** after **two** solid-liquid **meals** of 340 kcal and 680 kcal, Dyspeptics were studied after the 340-kcal **meal** only. For each subject and patient, minimum gallbladder **volume** and percentage of **gastric emptying** at this point was determined. **Gastric** and gallbladder slope was also drawn, and the crossing point between the two slopes identified. In normal subjects with the 340-kcal and 680-kcal **meal**, minimum gallbladder **volume** occurred for a similar percentage of **gastric emptying**, The crossing point between the two slopes was computed at the same percentage of gastric and gallbladder refilling with both **meals**. With the 680-kcal **meal**, however, peak gallbladder contraction and the crossing point between the two slopes occurred significantly later than with the 340-kcal **meal** ($P < 0.05$). In dyspeptics with the 340-kcal **meal**, the parameters **evaluated** were similar to the ones computed in controls after the **meal** of 680-kcal, suggesting delayed gastric **emptying** and gallbladder refilling. The presence or absence of H. pylori and symptom score were not correlated with any of the parameters studied.
Descriptors--Author Keywords: ULTRASOUND ; GASTRIC EMPTYING ; GALLBLADDER EMPTYING ; REFILLING ; DYSPEPSIA ; HELICOBACTER PYLORI
Identifiers-- KeyWords Plus: NONULCER DYSPEPSIA; CISAPRIDE; SOLIDS; MEAL
Research Fronts: 94-1492 002 (HELICOBACTER-PYLORI INFECTION; IMPLICATIONS FOR ULCER THERAPY; ACID-PEPTIC DISEASE)
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20/5/68 (Item 2 from file: 34) **Links**
SciSearch(R) Cited Ref Sci

01186113 **Genuine Article#:** GC251 **Number of References:** 35

RELATION BETWEEN POSTPRANDIAL GASTRIC-EMPTYING AND CUTANEOUS ELECTROGASTROGRAM IN PRIMATES

Author: DESVARANNES SB; MIZRAHI M; DUBOIS A
Corporate Source: UNIFORMED SERV UNIV HLTH SCI,DEPT MED,DIV DIGEST DIS,GASTROINTESTINAL & LIVER STUDIES LAB/BETHESDA//MD/20814; UNIFORMED SERV UNIV HLTH SCI,DEPT MED,DIV DIGEST DIS,GASTROINTESTINAL & LIVER STUDIES LAB/BETHESDA//MD/20814; ARMED FORCES RADIOBIOL RES INST,DEPT PHYSIOL/BETHESDA//MD/20814
Journal: AMERICAN JOURNAL OF PHYSIOLOGY , 1991 , V 261 , N2 , P G248-G255
Language: ENGLISH **Document Type:** ARTICLE
Geographic Location: USA
Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences
Journal Subject Category: PHYSIOLOGY
Abstract: The relation between the cutaneous electrogastrogram (EGG) and gastric **emptying** was investigated in six rhesus monkeys. Gastric **emptying** was **measured** using scintigraphy after administration of **two** 80-ml mixed solid liquid **meals** (1.5 and 5.0 kcal/kg) tagged with Tc-99m-sulfur colloid and In-111-diethylenetriamine penta-acetic acid. Six epigastric bipolar recordings of the EGG were concurrently obtained, digitized, and band-pass filtered. Portions of the signal with motion artifacts were automatically detected and excluded using two microwave motion sensors. During the early postprandial period, gastric **emptying** was greater after the 1.5-kcal/kg **meal** than after the 5-kcal/kg **meal**, and EGG amplitude increased significantly compared with fasting only after the 1.5-kcal/kg **meal**. Both **emptying** and EGG amplitude subsequently decreased after the 1.5-kcal/kg **meal**, whereas these **two** parameters increased after the 5-kcal/kg **meal**. As a result, EGG amplitude was significantly correlated with gastric **emptying** of solids in all six animals. In contrast, EGG frequency was not significantly different between the **two meals** and was not correlated with **emptying**. These results indicate that both the EGG and **gastric emptying** are modified differently by **meals** with different caloric **contents** and that the EGG may represent a useful, although indirect, index of gastric **emptying**.
Descriptors--Author Keywords: EMPTYING OF SOLIDS; EMPTYING OF LIQUIDS; CALORIC MEALS; GASTRIC MOTILITY
Identifiers-- KeyWords Plus: ELECTROMECHANICAL ACTIVITY; MOTOR-ACTIVITY; HUMANS; STOMACH; TACHYGASTRIA; RADIATION; MOTILITY; LIQUIDS; SURFACE; MEALS
Cited References:

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VANDERSCHEE EJ, 1982, P241, MOTILITY DIGESTIVE T
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WINER BJ, 1971, STATISTICAL PRINCIPL
WIRTH N, 1983, V24, P511, J NUCL MED
YOU CH, 1984, V86, P1460, GASTROENTEROLOGY

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Set     Items   Description
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BENOREN, I? OR BENOREN I? OR OREN, I? OR OREN I? OR OREN, B? OR OREN B?)
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S3          1   S AU=(CALEBACH, E? OR CALEBACH E?)
S4          8   S AU=(YARIV, G? OR YARIV G?)
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(ILAN(2N)BENOREN)
S6          0   S JULIAN(2N)DAICH
S7          0   S EPHRAIM(2N)CALEBACH
S8         10   S GEORGE(2N)YARIV
S9         22   S S2:S8
S10        18   RD  (unique items)
S11   3238028   S GASTRIC? OR GASTRO? OR GASTROINTESTIN? OR DYSPEP? OR STOMACH???
S12        28   S S11 AND S1
S13        24   S S12 NOT S9
S14        16   RD  (unique items)
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[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec

[File 16] **Gale Group PROMT(R)** 1990-2007/Mar 21

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Mar 21

[File 9] **Business & Industry(R)** Jul/1994-2007/Mar 21

[File 347] **JAPIO** Dec 1976-2006/Nov(Updated 070228)

[File 350] **Derwent WPIX** 1963-2006/UD=200719

**File 350: DWPI has been enhanced to extend content and functionality of the database. For more info, visit http://www.dialog.com/dwpi/.*

10/5/1 (Item 1 from file: 5) **Links**
Fulltext available through: ScienceDirect
Biosis Previews(R)

17677889 **Biosis No.:** 200400058646
Breath test apparatus and methods

Author: Ben-Oren Ilan (Reprint); Carlebach Ephraim; **Daich Julian**; Colman Lewis; Levitsky Gershon; Givron Boaz; Katzman Daniel
Author Address: Jerusalem, Israel**Israel
Journal: Official Gazette of the United States Patent and Trademark Office Patents 1277 (1): Dec. 2, 2003 2003
Medium: e-file
Patent Number: US 6656127 **Patent Date Granted:** December 02, 2003 20031202 **Patent Classification:** 600-532 **Patent Assignee:** Oridion Breathid Ltd., Jerusalem, Israel **Patent Country:** USA
ISSN: 0098-1133 _(ISSN print)
Document Type: Patent
Record Type: Abstract
Language: English

Abstract: Breath test methods and apparatus for increasing accuracy and reducing the time taken to achieve diagnostically useful results. In order to determine when an increase in isotopic ratio of the exhaled breath is clinically significant, methods are described for the use of a variable and multiple threshold level; for reducing the time taken to determine an accurate baseline level; and for avoiding the effects of oral activity when making measurements. To increase measurement accuracy, methods are described, using the results of the breath tests themselves, of continuous and automatic self-calibration to correct for drifts in the gas spectrometer absorption curves. A method for increasing the spectral stability of cold cathode discharge infra-red light sources for use in breath test instrumentation is described. Calibration checking devices and methods of mandating their use at regular time intervals are described, to ensure maintenance of the accuracy of breath tests.

Descriptors:
Major Concepts: Equipment Apparatus Devices and Instrumentation; Forensics; Methods and Techniques
Methods & Equipment: breath test apparatus--medical equipment; breath test method--clinical techniques, diagnostic techniques
Concept Codes:
00531 General biology - Forensic science

10/5/8 (Item 2 from file: 16) **Links**
Gale Group PROMT(R)

09785460 **Supplier Number:** 86122325 **(USE FORMAT 7 FOR FULLTEXT)**

Oridion Unveils CO2 Monitoring Technology and Diagnostic Device for the Management of GI Disorders At DDW.

Business Wire , p 2155
May 21 , 2002
Language: English **Record Type:** Fulltext
Document Type: Newswire ; Trade
Word Count: 1124
Publisher Name: Business Wire
Industry Names: BUS (Business, General); BUSN (Any type of business)

10/5/9 (Item 3 from file: 16) **Links**
Gale Group PROMT(R)

06249011 **Supplier Number:** 54179413 **(USE FORMAT 7 FOR FULLTEXT)**

ORIDION SIGNS PRIVATE LABEL PACT WITH MEDTRONIC PHYSIO-CONTROL.
Biotech Equipment Update , v 7 , n 4 , p NA
April , 1999
Language: English **Record Type:** Fulltext
Document Type: Newsletter ; Trade
Word Count: 397
Publisher Name: Worldwide Videotex
Company Names: *Oridion Medical Ltd.
Event Names: *336 (Product introduction); 380 (Strategic alliances)
Geographic Names: *1U9CA (California)
Product Names: *3841541 (Defibrillators)
Industry Names: BIO (Biotechnology); BUSN (Any type of business)
NAICS Codes: 334510 (Electromedical and Electrotherapeutic Apparatus Manufacturing)
Special Features: COMPANY

10/5/10 (Item 4 from file: 16) **Links**
Gale Group PROMT(R)

06089611 **Supplier Number:** 53619902 **(USE FORMAT 7 FOR FULLTEXT)**

Oridion Medical Inc. Supplies Its Handheld Capnograph to Datex-Ohmeda.
Business Wire , p 0072
Jan 22 , 1999
Language: English **Record Type:** Fulltext
Document Type: Newswire ; Trade
Word Count: 356
Publisher Name: Business Wire
Company Names: *Datex-Ohmeda
Industry Names: BUS (Business, General); BUSN (Any type of business)
Special Features: COMPANY

10/5/11 (Item 5 from file: 16) **Links**
Gale Group PROMT(R)

05637710 **Supplier Number:** 50078038 **(USE FORMAT 7 FOR FULLTEXT)**

Jerusalem Global Ltd. Raises $9.9 Million for Oridion Medical
PR Newswire , p 611HSTH016
June 11 , 1998
Language: English **Record Type:** Fulltext
Article Type: Article
Document Type: Newswire ; Trade
Word Count: 410
Publisher Name: PR Newswire Association, Inc.
Company Names: *Jerusalem Global Ltd.
Event Names: *810 (Securities issued, listed)
Geographic Names: *7ISRA (Israel)
Product Names: *6211300 (Investment Banking)
Industry Names: BUS (Business, General); BUSN (Any type of business)
NAICS Codes: 52311 (Investment Banking and Securities Dealing)
Special Features: COMPANY

10/5/12 (Item 1 from file: 621) **Links**
Gale Group New Prod.Annou.(R)

03255463 **Supplier Number:** 91028165 **(THIS IS THE FULLTEXT)**

Oridion Names Two Distinguished Healthcare Executives to Board of Directors.

Business Wire , p 2154
Sept 4 , 2002
Language: English **Record Type:** Fulltext
Document Type: Newswire ; Trade
Word Count: 851
Text:
Business/Technology Editors & Health/Medical Writers

NEEDHAM, Mass.--(BUSINESS WIRE)--Sept. 4, 2002

Oridion Systems Ltd. (ORIDN on SWX New Market) today announced that Frederick A. Robertson, M.D. and Joy A. Amundson have joined the Company's Board of Directors. Dr. Robertson and Ms. Amundson bring many years of marketing and general management expertise in the healthcare and medical device industries to Oridion. With its proprietary Microstream(R) technology at the core of its product development, Oridion develops and markets respiratory monitors and breath sampling consumables used mostly in acute settings and point-of-care products for diagnosis and management of gastrointestinal chronic disorders.

Dr. Robertson has served as an Assistant Professor of Anesthesiology at the Medical College of Wisconsin for the past two years. Dr. Robertson holds both teaching and clinical responsibilities in Pediatric Anesthesiology, while also conducting original research in respiratory monitoring technology. Prior to this appointment, Dr. Robertson served as CEO and President at GE-Marquette Medical Systems.

Ms. Amundson served as an executive with Abbott Laboratories for almost 20 years, most recently as President of Ross Products, a market leader in pediatric and adult nutritionals and specialty pharmaceuticals. Ms. Amundson also served concurrently as Senior Vice President of Abbott for eight years. In addition to nutritionals, her domain experience includes hospital products, pharmaceuticals, medical devices and consumer products.

"Both Dr. Robertson and Ms. Amundson bring exceptional market perspective and insight to Oridion's leadership team through their experience with such prominent companies as GE Medical Systems and Abbott Laboratories," said **George Yariv**, president and CEO, Oridion. "Dr. Robertson and Ms. Amundson have both led innovative and sustainable medical technology businesses that became successful models for the industry. They are invaluable resources on our Board of Directors, and we look forward to working with such visionary and accomplished individuals."

These appointments come during a period of substantial growth for Oridion and follow Oridion's decision earlier this year to establish U.S. Company headquarters as a worldwide management center for the Company's two business units.

About Oridion

Oridion Systems Ltd. (www.oridion.com) is a global medical device

company specializing in patient safety monitoring and products for diagnosis and management of gastrointestinal disorders. The company operates through its wholly owned subsidiaries in the United States, Europe, Japan and Israel. Oridion's patented Microstream(R) technology is the platform for two distinct Business Units.

The Capnography Business Unit develops proprietary medical devices and patient interfaces measuring carbon dioxide in human breath to determine the status and adequacy of a patient's ventilation. These products are used in various clinical environments, including procedural sedation, operating room, critical care, post anesthesia care unit, emergency medical services, transport, alternate care and other settings where patients' ventilation is compromised and at risk.

The Breath Testing Business Unit develops non-invasive, proprietary diagnostic products and consumables to determine the status of a patient's internal organs. These devices enable physicians to screen, diagnose and treat a range of organ-specific conditions at the point-of-care. Current applications from the BreathID(TM) device include the H. pylori breath test and the Gastric Emptying Rate test.

Certain statements made herein that are not historical are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. The words "estimate" "project" "intend" "expect" "believe" and similar expressions are intended to identify forward-looking statements. These forward-looking statements involve known and unknown risks and uncertainties. Many factors could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, among others, changes in general economic and business conditions, inability to maintain market acceptance to the Company's products, inability to timely develop and introduce new technologies, products and applications, rapid changes in the market for the Company's products, loss of market share and pressure on prices resulting from competition, introduction of competing products by other companies, inability to manage growth and expansion, loss of key OEM partners, inability to attract and retain qualified personnel, inability to protect the Company's proprietary technology.

Furthermore, this press release does not constitute an offer to sell or a solicitation of an offer to buy any securities. The Company's shares issued have not been, and will not be, registered under the US Securities Act of 1933, as amended (the "Securities Act"), or under any of the relevant Securities Laws of any state of the United States. The Company's shares may not be offered, sold or delivered, directly or indirectly, to, or for, the account of any US person (as defined in regulation S under the Securities Act) in or into the United States, or by use of the US mail, or by any means or instrumentality of United States interstate commerce, absent registration, or an exemption from registration under the Securities Act.

Publisher Name: Business Wire

Industry Names: BUS (Business, General); BUSN (Any type of business)

10/5/13 (Item 1 from file: 350) **Links**
Derwent WPIX

0013962148
WPI Acc no: 2004-142841/200414
Related WPI Acc No: 2003-290004; 2004-082846
XRAM Acc no: C2004-057444
XRPX Acc No: N2004-113899

Use of set of meals comprising constituents which retains meal in stomach of person, for determination of gastric accommodation of person using two measurements of gastric emptying parameter of meal

Patent Assignee: ORIDION BREATHID LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; **DAICH J**; **YARIV G**

Patent Family (2 patents, 100 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004002307	A2	20040108	WO 2003IL174	A	20030305	200414	B
AU 2003212627	A1	20040119	AU 2003212627	A	20030305	200447	E

Priority Applications (no., kind, date): US 2002392514 P 20020628; WO 2002IL702 A 20020822

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004002307	A2	EN	93	14		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003212627	A1	EN			Based on OPI patent	WO 2004002307

Alerting Abstract WO A2

NOVELTY - Use of set of meal(s) comprising at least one constituent which is operative to cause retention of one meal in stomach of person and having a predetermined volume, for determination of gastric accommodation of the person by means of two measurements of the gastric emptying parameter of meal as a function of the volume of meal which exited the stomach of the person, is new.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. a single-dosage liquid meal for use by person in breath test;

2. apparatus for determining gastric accommodation of person;
3. kit for diagnosis of gastric accommodation in person;
4. breath test apparatus for determining gastrointestinal conditions in person;
5. substrate for isotopic breath tests;
6. use of set of first and second liquid meal in determining gastric accommodation of person; and
7. kit for use in breath test for evaluation of dyspepsia in person.

USE - For determining gastric accommodation of the person suffering from gastro-intestinal conditions such as dyspepsia and irritable bowel syndrome (claimed).
ADVANTAGE - The apparatus and kit are safe and accurate in diagnosis of gastric disorders in patients.

Title Terms /Index Terms/Additional Words: SET; MEAL; COMPRISE; CONSTITUENT; RETAIN; STOMACH; PERSON; DETERMINE; GASTRIC; ACCOMMODATE; TWO; MEASURE; EMPTY; PARAMETER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/083			Main		"Version 7"

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; P31
Manual Codes (EPI/S-X): S03-E14H
Manual Codes (CPI/A-N): B04-B04L; B04-P01; B11-C07B5; B11-C08E2; B12-K04A

10/5/14 (Item 2 from file: 350) **Links**
Derwent WPIX

0013903394 *Drawing available*
WPI Acc no: 2004-082846/200408
Related WPI Acc No: 2003-290004; 2004-142841
XRAM Acc no: C2004-034081
XRPX Acc No: N2004-066173

Use of set of meal(s) comprising a constituent which retain meal(s) in the stomach of a person, for determination of gastric accommodation of the person using two measurements of gastric emptying parameter of meal

Patent Assignee: BEN-OREN I (BENO-I); CALEBACH E (CALE-I); CARLEBACH E (CARL-I); DAICH J (DAIC-I); ORIDION BREATHID LTD (ORID-N); YARIV G (YARI-I)
Inventor: BEN-OREN I; **CALEBACH E**; CARLEBACH E; **DAICH J**; **YARIV G**

Patent Family (4 patents, 102 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004002308	A2	20040108	WO 2003IL178	A	20030306	200408	B
AU 2003212628	A1	20040119	AU 2003212628	A	20030306	200447	E
EP 1571986	A2	20050914	EP 2003708453	A	20030306	200560	E
			WO 2003IL178	A	20030306		
US 20060074335	A1	20060406	US 2002392514	P	20020628	200625	E
			WO 2003IL178	A	20030306		
			US 2005519723	A	20050726		

Priority Applications (no., kind, date): US 2002392514 P 20020628; WO 2002IL702 A 20020822

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004002308	A2	EN	102	14		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003212628	A1	EN			Based on OPI patent	WO 2004002308
EP 1571986	A2	EN			PCT Application	WO 2003IL178
					Based on OPI patent	WO 2004002308
Regional Designated	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU					

States,Original	LV MC MK NL PT RO SE SI SK TR					
US 20060074335	A1	EN			Related to Provisional	US 2002392514
					PCT Application	WO 2003IL178

Alerting Abstract WO A2

NOVELTY - The use of set of meal(s) comprising a constituent which is operative to cause retention of meal(s) in the stomach of a person and having a predetermined volume, for determination of gastric accommodation of the person by means of two measurements of the gastric emptying parameter of meal as a function of the volume of meal which exited the stomach of the person.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

8. a single-dosage liquid meal for use by person in breath test;
9. apparatus for determining gastric accommodation of person;
10. kit for diagnosis of gastric accommodation in person;
11. breath test apparatus for determining gastrointestinal conditions in person;
12. substrate for isotopic breath tests;
13. use of set of first and second liquid meal in determination of gastric accommodation of person; and
14. kit for use in breath test for evaluation of dyspepsia in person.

USE - For determining gastric accommodation of the person suffering from gastro-intestinal condition such as dyspepsia and irritable bowel syndrome (claimed).

ADVANTAGE - The apparatus and kit are safe and accurate in diagnosis of gastric disorders in patients.

DESCRIPTION OF DRAWINGS - The figure shows flowchart of the detection and treatment of asymptomatic patients belonging to gastrointestinal high-risk group.

Title Terms /Index Terms/Additional Words: SET; MEAL; COMPRISE; CONSTITUENT; RETAIN; STOMACH; PERSON; DETERMINE; GASTRIC; ACCOMMODATE; TWO; MEASURE; EMPTY; PARAMETER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/083			Main		"Version 7"
A61B-0005/08	A	I	F	B	20060101
B65D-0081/00	A	I	L	B	20060101

US Classification, Issued: 600532000, 600543000

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; P31; Q34
Manual Codes (EPI/S-X): S03-E14H9
Manual Codes (CPI/A-N): B04-B04L; B11-C08E; B12-K04A

10/5/15 (Item 3 from file: 350) **Links**
Derwent WPIX

0013626421 *Drawing available*
WPI Acc no: 2003-721999/200368
XRAM Acc no: C2003-198695
XRPX Acc No: N2003-577259
Breath collection system for collecting samples of breath of subject, useful in breath tests, comprising breath conduit, sample containers, controller and sample distributor
Patent Assignee: ORIDION BREATHID LTD (ORID-N)
Inventor: BEN-OREN I; **DAICH J**; GIRON B

Patent Family (5 patents, 101 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003073935	A2	20030912	WO 2003IL162	A	20030303	200368	B
AU 2003209643	A1	20030916	AU 2003209643	A	20030303	200430	E
EP 1480557	A2	20041201	EP 2003743492	A	20030303	200478	E
			WO 2003IL162	A	20030303		
JP 2005519272	W	20050630	JP 2003572460	A	20030303	200543	E
			WO 2003IL162	A	20030303		
US 20050177056	A1	20050811	WO 2003IL162	A	20030303	200553	E
			US 2005506872	A	20050425		

Priority Applications (no., kind, date): IL 148468 A 20020303

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003073935	A2	EN	47	7		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003209643	A1	EN			Based on OPI patent	WO 2003073935
EP 1480557	A2	EN			PCT Application	WO 2003IL162
					Based on OPI patent	WO 2003073935
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
JP 2005519272	W	JA	28		PCT Application	WO 2003IL162

					Based on OPI patent	WO 2003073935
US 20050177056	A1	EN			PCT Application	WO 2003IL162

Alerting Abstract WO A2

NOVELTY - A breath collection system for collecting samples of breath of a subject, comprises:

A. a breath conduit adapted to convey breath from the subject to the system;
B. sample containers (24) for collection of the samples;
C. a controller (14); and
D. a sample distributor (20) that directs different predetermined samples of the breath to different sample containers according to the controller.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of determining, in a breath test of a subject, the change in volume of a species in the breath, comprising:

i. measuring a first concentration of the species in the breath by means of the breath test;
ii. similarly measuring a second concentration of the species in the breath;
iii. monitoring a physiological parameter of the subject related to the metabolic rate of the subject, for change in the parameter between the measuring of the first concentration and the second concentration; and
iv. adjusting the second concentration according to change determined in the physiological parameter, so that the second concentration measured is representative of the volume of the species in the breath.

USE - For collecting samples of breath of a subject, useful in breath tests.
ADVANTAGE - The system provides an automatic, portable, breath-sampling system, which is preferably carried by the subject, or kept with him or near him, for the recommended duration of the test.
DESCRIPTION OF DRAWINGS - The figure shows a schematic illustration of a breath collection system for use with cannula breath collection.
10 Breath sensor
14 Controller
20 Sample distributor
24 Sample containers
26 Physiological characteristic

Title Terms /Index Terms/Additional Words: BREATH; COLLECT; SYSTEM; SAMPLE; SUBJECT; USEFUL; TEST; COMPRISE; CONDUIT; CONTAINER; CONTROL; DISTRIBUTE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/08; A61B-005/091; G01N-001/02			Main		"Version 7"
B65D-081/00; G01N-001/22; G01N-033/497			Secondary		"Version 7

US Classification, Issued: 600543000

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; S05; P31; Q34
Manual Codes (EPI/S-X): S03-E13C; S03-E14H9; S05-C09
Manual Codes (CPI/A-N): B11-C04A; B11-C04B; B11-C06; B11-C08C; B12-K04

10/5/16 (Item 4 from file: 350) **Links**
Derwent WPIX

0013205719 *Drawing available*
WPI Acc no: 2003-290004/200328
Related WPI Acc No: 2004-082846; 2004-142841
XRAM Acc no: C2003-075333
XRPX Acc No: N2003-230653

Determination of gastrointestinal condition such as dyspepsia or irritable bowel syndrome, comprising performing breath tests and determining gastrointestinal condition from outcome

Patent Assignee: ORIDION BREATHID LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; **DAICH J**; **YARIV G**

Patent Family (6 patents, 100 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003017818	A2	20030306	WO 2002IL702	A	20020822	200328	B
EP 1427325	A2	20040616	EP 2002762741	A	20020822	200439	E
			WO 2002IL702	A	20020822		
AU 2002328137	A1	20030310	AU 2002328137	A	20020822	200452	E
US 20050020931	A1	20050127	US 2001314346	P	20010823	200509	E
			US 2002392514	P	20020628		
			WO 2002IL702	A	20020822		
			US 2004784117	A	20040220		
JP 2005503205	W	20050203	WO 2002IL702	A	20020822	200516	E
			JP 2003522349	A	20020822		
AU 2002328137	A8	20051027	AU 2002328137	A	20020822	200624	E

Priority Applications (no., kind, date): US 2004784117 A 20040220; WO 2002IL702 A 20020822; US 2001314346 P 20010823; US 2002392514 P 20020628

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003017818	A2	EN	63	13		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
EP 1427325	A2	EN			PCT Application	WO 2002IL702
					Based on OPI patent	WO 2003017818

Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002328137	A1	EN			Based on OPI patent	WO 2003017818
US 20050020931	A1	EN			Related to Provisional	US 2001314346
					Related to Provisional	US 2002392514
					Continuation of application	WO 2002IL702
JP 2005503205	W	JA	97		PCT Application	WO 2002IL702
					Based on OPI patent	WO 2003017818
AU 2002328137	A8	EN			Based on OPI patent	WO 2003017818

Alerting Abstract WO A2

NOVELTY - Gastrointestinal condition is determined by performing breath test-I and breath test-II, and determining the gastrointestinal condition from the outcome of the tests.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

15. method of providing a substrate for isotopic breath tests, comprising micro-encapsulating the isotopically labeled material for release in a predetermined part of the gastrointestinal tract;
16. method of performing a breath test for the determination of gastric emptying, comprising:
    A. providing a gas analyzer;
    B. collecting and analyzing the breath samples continuously, predetermining averaged norms for the values of t] 1/23, t]ag, delta over baseline (DoB) or Gastric Emptying Coefficient (GEC) parameters;
    C. administering test meal comprising a labeled marker whose by-products are absorbed and exhaled in breaths after exit from the stomach;
    D. calculating the parameters in real time as the breath test proceeds; and
    E. determining final estimated value of the parameters at the earliest possible moment, by extrapolation within allowed error limits;
17. method for the determination of gastric accommodation, comprising:
    A. administering liquid meal-I;
    B. determining the rate of emptying of meal-I;
    C. administering liquid meal-II having predetermined gastric retention characteristic in a greater volume than the meal-I;
    D. determining the rate of emptying of meal-II; and
    E. determining gastric accommodation according to the deviation between the rate of emptying of meal-II and meal-I;
18. breath test for determining the effect of the volume of meal on intragastric pressure, comprising administering isotopically labeled liquid meal having a predetermined gastric retention in predetermined volume, and determining the rate of emptying of the meal from the stomach; and
19. method for the determination of gastric-intestinal disorders, comprising administering meal comprising marker materials (I and II), detecting the generation of hydrogen by breath test and determining the position within the gastrointestinal tract at which the hydrogen is generated by the marker material-II. Material-I is not absorbed in the stomach and reduces hydrogen in the presence of bacteria, and material-II indicates the location of the meal within the gastrointestinal tract.

ACTIVITY - Antiinflammatory.

No test details are given for the above mentioned activity.
MECHANISM OF ACTION - None given in the source material.
USE - For diagnosing gastric disorder in patient suffering from dyspepsia (due to gastric emptying disorder, gastric accommodation disorder or *Helicobacter pylori* infection) or irritable bowel syndrome (due to sugar malabsorption disorder, bacterial overgrowth or orocecal transit time disorder). The sugar malabsorption disorder is due to intolerance such as lactose, fructose, sucrose or maltose.
ADVANTAGE - The labeled substrate provides good bonding to the test meal in the acidic environment of the stomach, releases the test material rapidly with immediate absorption, metabolization and conversion to measurable carbon dioxide, dual usage for gastric emptying breath test, and is easily prepared at reasonable cost. The method enables to provide noninvasive, accurate and convenient method for the measurement of the gastrointestinal conditions related to gastric emptying and other gastric motility disorders. The combination of hydrogen and carbon dioxide marker in the ingested substrate enhances the determination of accelerated or delayed orocecal transit time.
DESCRIPTION OF DRAWINGS - The figure shows a schematic flowchart describing possible courses of detection and treatment for asymptomatic patients belonging to gastrointestinal disorders.

Title Terms /Index Terms/Additional Words: DETERMINE; GASTRO; CONDITION; DYSPEPSIA; IRRITATE; BOWEL; SYNDROME; COMPRISE; PERFORMANCE; BREATH; TEST

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B; A61B-001/00; A61B-010/00; A61B-005/08			Main		"Version 7"
A61K-049/00; A61K-009/10; A61K-009/50			Secondary		"Version 7

US Classification, Issued: 600532000, 424009100

File Segment: CPI; EngPI
DWPI Class: B04; P31
Manual Codes (CPI/A-N): B05-A01B; B05-C04; B05-C08; B07-A02; B10-A07; B10-C04E; B11-C08E1; B12-K04A; B12-M11E

10/5/17 (Item 5 from file: 350) **Links**
Derwent WPIX

0011040891 *Drawing available*
WPI Acc no: 2001-112178/200112
Related WPI Acc No: 2001-061635; 2001-626483
XRPX Acc No: N2001-082406
Infrared light source construction method involves constructing lamp envelope, cleaning lamp envelope, filling lamp envelope with gas mixture, and including layer of catalyst within lamp envelope
Patent Assignee: BEN-OREN I (BENO-I); CARLEBACH E (CARL-I); COLMAN L (COLM-I); DAICH J (DAIC-I); GIVRON B (GIVR-I); KATZMAN D (KATZ-I); LEVITSKY G (LEVI-I); ORIDION BREATHID LTD (ORID-N); ORIDION MEDICAL 1987 LTD (ORID-N); ORIDION MEDICAL LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; COLMAN L; **DAICH J**; GIVRON B; KATZMAN D; LEVITSKY G

Patent Family (6 patents, 92 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000075956	A2	20001214	WO 2000IL337	A	20000607	200112	B
AU 200050996	A	20001228	AU 200050996	A	20000607	200119	E
EP 1230669	A2	20020814	EP 2000935457	A	20000607	200261	E
			WO 2000IL337	A	20000607		
US 20030216660	A1	20031120	US 2000542768	A	20000404	200377	E
			US 2003459692	A	20030610		
US 6656127	B1	20031202	US 2000542768	A	20000404	200379	E
JP 2004507860	W	20040311	WO 2000IL337	A	20000607	200419	E
			JP 2001502137	A	20000607		

Priority Applications (no., kind, date): IL 130370 A 19990608; IL 130372 A 19990608; US 2000542768 A 20000404

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2000075956	A2	EN	16	1		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
AU 200050996	A	EN			Based on OPI patent	WO 2000075956
EP 1230669	A2	EN			PCT Application	WO 2000IL337
					Based on OPI patent	WO 2000075956

Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SI					
US 20030216660	A1	EN			Division of application	US 2000542768
JP 2004507860	W	JA	31		PCT Application	WO 2000IL337
					Based on OPI patent	WO 2000075956

Alerting Abstract WO A2

NOVELTY - A lamp envelope (12) is constructed, cleaned and then filled with a gas mixture (16) comprised of at least one infrared-active gas species. A layer of catalyst (26) is included within the lamp envelope.
DESCRIPTION - An INDEPENDENT CLAIM is also included for an improved electrically excited gas discharge lamp.
USE - For e.g. gas analyzer of breath test instrumentation.
ADVANTAGE - Maintains high level of spectral stability.
DESCRIPTION OF DRAWINGS - The figure is the schematic drawing of an infrared light source.
12 Lamp envelope
16 Gas mixture
26 Catalyst

Title Terms /Index Terms/Additional Words: INFRARED; LIGHT; SOURCE; CONSTRUCTION; METHOD; LAMP; ENVELOPE; CLEAN; FILL; GAS; MIXTURE; LAYER; CATALYST

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-005/08; H01J-061/00; H01J-061/28; H01J-065/00			Main		"Version 7"

US Classification, Issued: 600532000, 600532000, 600529000

File Segment: CPI; EngPI; EPI
DWPI Class: B04; E36; S03; S05; X26; P31
Manual Codes (EPI/S-X): S03-E04A5B; S05-D01C1; X26-A02C; X26-A03
Manual Codes (CPI/A-N): E31-N05C; N02-E; N02-F; N03-G

10/5/18 (Item 6 from file: 350) **Links**
Derwent WPIX

0011001289
WPI Acc no: 2001-626483/200172
Related WPI Acc No: 2001-061635; 2001-112178
XRAM Acc no: C2001-186737
XRPX Acc No: N2001-466963
Breath test method involves performing two measurements of isotropic ratio of breath samples of subject, and determining when second measurement shows deviation from first measurement
Patent Assignee: ORIDION MEDICAL 1987 LTD (ORID-N); ORIDION MEDICAL LTD (ORID-N)
Inventor: BEN-OREN I; CARLEBACH E; **DAICH J**; GIRON B; KATZMAN D

Patent Family (4 patents, 94 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001075439	A2	20011011	WO 2001IL308	A	20010404	200172	B
AU 200146798	A	20011015	AU 200146798	A	20010404	200209	E
EP 1282814	A2	20030212	EP 2001919740	A	20010404	200312	E
			WO 2001IL308	A	20010404		
JP 2003529766	W	20031007	JP 2001572866	A	20010404	200370	E
			WO 2001IL308	A	20010404		

Priority Applications (no., kind, date): US 2000542768 A 20000404

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001075439	A2	EN	99	6		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200146798	A	EN			Based on OPI patent	WO 2001075439
EP 1282814	A2	EN			PCT Application	WO 2001IL308
					Based on OPI patent	WO 2001075439
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
JP 2003529766	W	JA	98		PCT Application	WO 2001IL308
					Based on OPI patent	WO 2001075439

Alerting Abstract WO A2

NOVELTY - A breath test method comprises performing two measurements of isotropic ratio of breath samples of a subject, and determining when the second measurement shows deviation from the first measurement that a clinically result of the breath test may be concluded. The level of the deviation is allowed to undergo variation during the breath test.

DESCRIPTION - INDEPENDENT CLAIMS are also included for:

20. a breath test instrument which monitors changes in an isotropic ratio of a gas in exhaled breath samples of a subject virtually continuously;
21. a method of determining the reliability of a breath test comprising:
    F. obtaining results from the breath test;
    G. defining a reliability parameter by combining at least one of the criteria selected from the group consisting of the instrument noise and/or drift level, the standard deviation of the physiological spread of results, the dynamics of the physiological change in the isotopic ratio, and the time elapsed since ingestion of a labelled substrate; and
    H. using the reliability parameter to assess the results of the breath test according to a predetermined reliability criterion;
22. a method of calibrating a breath test instrument without need for externally supplied calibration means comprising continuously measuring isotopic ratios of a gas species in the samples in a plurality of subjects and searching for correlation between the isotopic ratios of the gas species and the concentration of the gas species in the sample;
23. a method of correcting a change in the calibration of a gas analyzer for determining the isotopic ratio between a first component and a second component of a gaseous sample comprising:
    A. measuring the concentration of the first component by means of optical transmission measurements;
    B. calculating the concentration of the second component from the measured concentration of the first component by assuming a predetermined ratio between the components; and
    C. correcting transmission measurements made on the second component such that a concentration derived from it is essentially equal to the concentration calculated in the previous step from the measured concentration of the first component;
24. a method of calibration of a capnographic probe comprising:
    A. estimating the integrated concentration of the accumulated breaths collected according to the measured capnograph waveforms;
    B. measuring the concentration of a sample of the accumulated breaths in the gas analyzer of the breath test instrument; and
    C. correcting the calibration of the capnographic probe such that it provides the same concentration as that measured by the gas analyzer;
25. a method of determining whether the correct isotopically labelled substance kit is being used for a specific breath test comprising adding a marker element to the substance and providing breath test instrumentation comprising a detector for the element;
26. a method of determining when the effects of oral activity have subsided during execution of a breath test comprising:
    A. determining a characteristic time required to detect the physiological effect of interest in the breath test;
    B. monitoring change in an isotopic ratio in samples of breath collected from a subject following the ingestion of an isotopically labelled substrate; and
    C. detecting the presence of a meaningful peak over a predefined minimum threshold level occurring in the

isotopic ratio, within a shorter time than the characteristic time; and

27. a method, in a breath test procedure, of determining a baseline level for an isotopic ratio of a gaseous species in exhaled breath of a subject before ingestion of an isotopically labelled substrate comprising:
    A. performing a measurement of a first baseline point;
    B. assessing the reliability of the measurement; and
    C. performing a second measurement of at least one additional baseline point if the reliability of the measurement of the first baseline point is determined to be inadequate.

USE - For performing breath test.
ADVANTAGE - The invention ensures accuracy, speed, and reliability of breath tests.

Title Terms /Index Terms/Additional Words: BREATH; TEST; METHOD; PERFORMANCE; TWO; MEASURE; ISOTROPIC; RATIO; SAMPLE; SUBJECT; DETERMINE; SECOND; SHOW; DEVIATE; FIRST

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
G01N-033/497			Main		"Version 7"
A61B-005/08; A61B-005/083			Secondary		"Version 7

File Segment: CPI; EngPI; EPI
DWPI Class: B04; S03; P31
Manual Codes (EPI/S-X): S03-E14H
Manual Codes (CPI/A-N): B04-B04L; B05-C06; B11-C08; B12-K04

14/5/2 (Item 2 from file: 5) **Links**
Biosis Previews(R)

17622473 **Biosis No.:** 200300573150

THE GASTROSCOPIC 13C-UREA BREATH TEST: A NEW RAPID ONLINE TEST FOR HELICOBACTER PYLORI (HP) DETECTION DURING ROUTINE UPPER ENDOSCOPY.

Author: Fruehauf Heiko (Reprint); Lindenmann Nadja; Volkart Karin; Bauerfeind Peter ; **Ben-Oren Ilan**; Fried Michael
Author Address: Zurich, Switzerland**Switzerland
Journal: Digestive Disease Week Abstracts and Itinerary Planner 2003 p Abstract No. S1224 2003 2003
Medium: e-file
Conference/Meeting: Digestive Disease 2003 FL, Orlando, USA May 17-22, 2003; 20030517
Sponsor: American Association for the Study of Liver Diseases
American Gastroenterological Association
American Society for Gastrointestinal Endoscopy
Society for Surgery of the Alimentary Tract
Document Type: Meeting; Meeting Poster; Meeting Abstract
Record Type: Abstract
Language: English

Abstract: BACKGROUND: The biopsy based HP urease test (HUT) has several drawbacks. The acquisition of biopsies might constitute a hazard in patients with bleeding disorders, anticoagulant therapy or contagious infectious diseases. In addition, definitive test results may not immediately be available. AIM: We investigated the feasibility of a rapid online HP breath test during diagnostic upper endoscopy (**gastroscopic** breath test; GBT) compared to the standard HUT in a prospective, randomized controlled study. METHODS: 119 consecutive patients were randomly allocated on alternate days to receive HP testing by either HUT (n=61) or GBT (n=58) with 75 mg of 13C-labelled urea by endoscopic instillation. Breath samples were continuously collected via a nasal canula and analyzed using an isotope selected non-dispersive infrared spectrometer displaying online real time results. We recorded procedure time and time until test results were obtained. Results are shown as mean +- SD (range). RESULTS: HP was detected in 10/49 (20.4%) with HUT and in 16/53 (30.2%) with GBT (n.s.). Contraindications for the acquisition of biopsies prevented HUT in 12/61 (19.7%) patients due to bleeding disorders (1), therapy with anticoagulants (9), intake of NSAR (1) or missing endocarditis prophylaxis (1). In comparison, GBT results could not be obtained in 1/58 patient due to respiratory disease and in 4/58 patients due to technical issues early in the study (2) or inadequate nasal breathing (2). Slightly less time was required to perform HUT than GBT (121 +- 30 s vs.164 +- 36 s; $p<0.0001$). The time required to produce definitive HP results using GBT was 14.0 +- 2.2 min (11-20) compared to 19.6 +- 9.1 hours (0.2-24) for HUT ($p<0.0001$). GBT prolonged patient occupancy of the endoscopy room compared to HUT by 5.6 minutes per patient (45.1 +- 8.5 min vs. 39.5 +- 10.3 min; $p<0.01$). With increased experience of the GBT in the course of the study this time difference decreased. CONCLUSIONS: 1) GBT enables HP testing in many patients (up to 20% in this study) with contraindications for biopsy with only a minimal prolongation of the procedure time. 2) In contrast to HUT GBT provides immediate, definitive results. 3) GBT has the potential to become a standard procedure for HP testing during routine upper **gastrointestinal** endoscopy..

Descriptors:
Major Concepts: Gastroenterology--Human Medicine, Medical Sciences; Infection; Radiology--Medical Sciences

Biosystematic Names: Aerobic Helical or Vibrioid Gram-Negatives--Eubacteria, Bacteria, Microorganisms;

Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
Organisms: Helicobacter pylori (Aerobic Helical or Vibrioid Gram-Negatives)--pathogen; human (Hominidae)--host, patient
Organisms: Parts Etc: digestive system--digestive system
Common Taxonomic Terms: Bacteria; Eubacteria; Microorganisms; Animals; Chordates; Humans; Mammals; Primates; Vertebrates
Diseases: Helicobacter pylori infection--bacterial disease, digestive system disease, infectious disease, diagnosis
Mesh Terms: Helicobacter Infections (MeSH)
Chemicals & Biochemicals: { carbon-13}urea
Methods & Equipment: gastroscopic {carbon-13}urea breath test--clinical techniques, diagnostic techniques; upper endoscopy--clinical techniques, therapeutic and prophylactic techniques
Concept Codes:
00520 General biology - Symposia, transactions and proceedings
06504 Radiation biology - Radiation and isotope techniques
12504 Pathology - Diagnostic
14004 Digestive system - Physiology and biochemistry
14006 Digestive system - Pathology
31000 Physiology and biochemistry of bacteria
36001 Medical and clinical microbiology - General and methods
36002 Medical and clinical microbiology - Bacteriology
Biosystematic Codes:
06210 Aerobic Helical or Vibrioid Gram-Negatives
86215 Hominidae

14/5/15 (Item 1 from file: 34) **Links**
Fulltext available through: USPTO Full Text Retrieval Options
SciSearch(R) Cited Ref Sci

11991006 **Genuine Article#:** 675CR **Number of References:** 0

The gastroscopic C-13-urea breath test: A new rapid online test for Helicobacter pylori (HP) detection during routine upper endoscopy

Author: Fruehauf H; Lindenmann N; Volkart K; Bauerfeind P; **Ben-Oren I**; Fried M
Journal: GASTROENTEROLOGY , 2003 , V 124 , N4,S (APR) , P A176-A176
ISSN: 0016-5085 **Publication date:** 20030400
Publisher: W B SAUNDERS CO , INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399 USA
Language: English **Document Type:** MEETING ABSTRACT
Journal Subject Category: GASTROENTEROLOGY & HEPATOLOGY

14/5/16 (Item 1 from file: 350) **Links**
Derwent WPIX

0009298779 *Drawing available*
WPI Acc no: 1999-229116/199919
Related WPI Acc No: 1999-254421; 2000-399162; 2001-225864
XRPX Acc No: N1999-169557
Breath test analyzer for detection of diseases and infections from gastric byproducts
Patent Assignee: CARLEBACH E (CARL-I); KATZMAN D E (KATZ-I); ORIDION MEDICAL LTD (ORID-N)
Inventor: **BEN-OREN I**; CARLEBACH E; COLMAN L; GIRON B; KATZMAN D; KATZMAN D E; LEVITSKY G

Patent Family (11 patents, 79 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1999012471	A2	19990318	WO 1998IL445	A	19980910	199919	B
AU 199891826	A	19990329	AU 199891826	A	19980910	199932	E
EP 1018938	A2	20000719	EP 1998944192	A	19980910	200036	E
			WO 1998IL445	A	19980910		
CN 1277545	A	20001220	CN 1998810490	A	19980910	200121	E
US 20010021815	A1	20010913	US 1998151135	A	19980910	200155	E
			US 2001767601	A	20010122		
JP 2001515745	W	20010925	WO 1998IL445	A	19980910	200170	E
			JP 2000510373	A	19980910		
IL 121751	A	20011031	IL 121751	A	19970911	200174	E
EP 1211502	A2	20020605	EP 1998945516	A	19980917	200238	E
			EP 20024740	A	19980917		
EP 1217355	A2	20020626	EP 1998945516	A	19980917	200249	E
			EP 20024741	A	19980917		
US 6491643	B2	20021210	US 1997805415	A	19970226	200301	NCE
			US 1998151135	A	19980910		
			US 2001767601	A	20010122		
US RE38728	E	20050419	US 1997805415	A	19970226	200527	E
			US 1998151135	A	19980910		
			US 2002122341	A	20020416		

Priority Applications (no., kind, date): US 2001767601 A 20010122; IL 121751 A 19970911; IL 121793 A 19970917

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1999012471	A2	EN	42	6		

National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199891826	A	EN			Based on OPI patent	WO 1999012471
EP 1018938	A2	EN			PCT Application	WO 1998IL445
					Based on OPI patent	WO 1999012471
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
US 20010021815	A1	EN			Continuation of application	US 1998151135
					Continuation of patent	US 6186958
JP 2001515745	W	JA	53		PCT Application	WO 1998IL445
					Based on OPI patent	WO 1999012471
IL 121751	A	EN				
EP 1211502	A2	EN			Division of application	EP 1998945516
					Division of patent	EP 1012573
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IT LI NL PT RO SE					
EP 1217355	A2	EN			Division of application	EP 1998945516
					Division of patent	EP 1012573
Regional Designated States,Original	AT BE CH DE DK ES FI FR GB GR IT LI NL PT RO SE					
US 6491643	B2	EN			C-I-P of application	US 1997805415
					Continuation of application	US 1998151135
					C-I-P of patent	US 6067989
					Continuation of patent	US 6186958
US RE38728	E	EN			C-I-P of application	US 1997805415
					Original reissued application	US 1998151135
					C-I-P of patent	US 6067989
					Reissue of patent	US 6186958

Alerting Abstract WO A2

NOVELTY - The analyzer uses a very sensitive infrared spectrophotometer, which enables it to continuously collect and to analyze multiple samples of the patient's breath and to process the outputs in real time, whilst the patient is connected to the analyzer. The patient is connected to the apparatus. (21) by a nasal cannula (22). The apparatus is controlled by a laptop PC (23). Samples are taken as the patient breathes with the analysis measuring the ratio of chemically identical gases with different molecular weights.

USE - Detection of diseases and infections from **gastric** byproducts.

ADVANTAGE - Provides accurate on-line analysis using a low cost, low volume and weight, portable instrument.

DESCRIPTION OF DRAWINGS - The drawing shows a schematic view of a patient connected to the apparatus.

21 Breath analyzer

22 Nasal cannula
23 Laptop PC

Title Terms /Index Terms/Additional Words: BREATH; TEST; ANALYSE ; DETECT; DISEASE; INFECT; **GASTRIC**

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
A61B-010/00; A61B-005/02; A61B-005/08; A61B-005/083; A61B-005/09; G01N-021/11; G01N-021/35			Main		"Version 7"
G01N-021/03; G01N-033/497			Secondary		"Version 7

US Classification, Issued: 600532000, 600532000, 436811000, 424084000, 128898000

File Segment: EngPI; EPI;
DWPI Class: S05; T01; P31
Manual Codes (EPI/S-X): S05-D01C1; T01-J06A